

OCCUPATIONAL CHOICE AND VALUES

by

Aristotelis Kantas

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DECLARATION

This thesis was composed completely by myself and it includes solely material collected by myself.

A handwritten signature in black ink, consisting of a stylized 'A' followed by a series of loops and a long horizontal stroke extending to the right.

Aristotelis Kantas

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ABSTRACT

It is suggested that psychological and sociological approaches to occupational choice can be linked together by employment of three concepts: work salience, values and motivation. Employing Vroom's (1964) cognitive model of motivation occupational choice was examined as a value attainment process.

The subjects were 225 male pupils of two different school complexes in Athens, Greece. They were asked to respond to a work salience questionnaire and to rank order a set of Life Values and a set of Work Values. Modified versions of the Rokeach Value Survey (1973) and of Super's Work Values Inventory (1969) were employed. The pupils were also required to ask their parents to rank order the two sets of values. A random subsample of 70 pupils had interviews with the investigator in which responses to a motivational measure were obtained as well as responses concerning their perceptions of the meaning of work under different circumstances and conditions. Responses to the interview questions were classified into categories similar to the value items examined by the other measures and the two different measures were compared.

Analysis of the value systems of the pupils and their parents, within and across schools, showed an overall similarity and some significant differences between pupils, parents, and schools. Some of these differences were attributed to socioeconomic differences existing in the sample. A factor analysis of the salience measure failed to give psychometrically valid categorizations but it gave some indications for the existence of three different attitudinal categories in the sample.

Analysis involving the motivational model gave support to the hypothesis that occupational choice can be viewed as a value attainment process, an indication that was further supported by the responses to the open ended questions to the interview. There was evidence that the value hierarchies of people serve as motivators when a choice situation is involved. There were also some indications in the responses obtained that top and bottom values in the hierarchy are the best predictors of action. A model describing occupational choice as a value attainment process is also presented.

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INTRODUCTION

Occupational choice and young people's entry into the world of work have been the objects of extensive research and theorization for almost eighty years. The highly specialized division of labour, a prominent characteristic of this century, the high rates of social mobility that accompanied the rapid industrialization, and the differential allocation of status, income, and privileges have forced social scientists from diverse disciplines to examine entry into work from two main viewpoints: the individual making a choice, and the society planning its economy and recruiting the required manpower. Thus, psychologists, sociologists, economists, and other social scientists have made joint or independent efforts to examine how the transition into work is effected.

It should have been expected though, that a certain amount of confusion would creep into the different formulations, because of the fragmented nature of the different disciplines, each one employing its own concepts, instruments, terminology, and fundamental principles. As a result, intensive research and speculation have not brought us much nearer to understanding how choice comes to be made, or how societal needs and the dictates of the economy come to be implemented in individual actions, when occupational choice is considered.

This writer's interest in occupational choice came as a result of a long career as a secondary education teacher in Greece. At first he witnessed a transition: he saw all of a sudden the seemingly normal flow of students into secondary

education, and then into university that existed in the early 1960s in his home country, take dramatic rates in a few years' time. This could not be explained by the growth of the population alone. Suddenly, more people wanted to study, more parents were prepared to spend, sometimes more than they could afford, in order to offer their children what they considered appropriate education. At that point it was mainly a matter of choosing a course of action that would eventually lead to a desired career. Then, new phenomena appeared: people were not the only ones that chose, employers and educational institutions also chose. A competitive situation arose, in some professions unemployment started appearing, in some jobs the formerly required qualifications were no longer adequate. Yet, young people and parents, at least those with whom the writer came into contact, were not deterred; traditional pursuits were still pursued in a breath-taking race. The only change was that people started speculating, not always in terms of the content of the aspired occupations, but mainly in terms of the professional level. A question was raised in this writer's mind: What are young people actually choosing, something to suit their needs and interests or something to suit, preserve, or change their social position?

When the situation became alarming, i.e. more and more high school leavers were aiming for the same higher education courses, the Greek state decided to intervene by introducing careers guidance into secondary schools. The writer was awarded one of the grants created for this purpose.

A newcomer to this field, the writer, while designing his

research, went through the same stages that occupational choice theory and research had gone. His previous experience though, had provided him with a set of questions for which he was seeking some answers: Why are young people sometimes more interested in the educational and social level of what they are pursuing than in the actual content? What determines their strong motivation towards certain alternatives? Why are they prepared to compromise? Why are they sometimes prepared to grasp any opportunity connected with certain outcomes that do not bear directly on what they usually report as their interests?

Admittedly, these and a host of other questions, originated from a specific culture, and a specific social and cultural milieu within that culture, thus biasing the investigator's thoughts towards some and not all of the main problems associated with occupational choice, and perhaps towards some of the existing approaches to the problem, as opposed to others.

In the chapters that follow, we shall first examine some of the factors that have usually been connected with occupational choice, then we shall proceed to an examination of the main theories on occupational choice, trying to concentrate on the ones most widely accepted. Finally, we shall present how this writer's thought concentrated on three main issues, which he employed in conducting his empirical study with a sample from the population that provided him with the stimulus to start this project.

PART I: REVIEW OF THE RELEVANT LITERATURE.

1. Definition of Terms.

It would be useful at the outset to clarify some of the terms and concepts usually employed in occupational research.

Work in a monetized society, according to Moore (1969) constitutes an activity that is financially remunerated, either directly or through the sale of goods. Super (1978) points to some of the ambiguity usually connected with the term: *Of the thirty five sources surveyed, four view work as primarily productive employment, fourteen as a social role which provides livelihood and structures life, three as synonymous with job, eleven use but do not define it, and three make no use of the term" (p.158).* He then proposes the following definition: Work: *the systematic pursuit of an objective valued by oneself (even if only for survival) and desired by others; directed and consecutive, it requires the expenditure of effort. It may be compensated (paid work) or uncompensated (volunteer work or an avocation). The objective may be intrinsic enjoyment of the work itself, the structure given to life by the work role, the economic support which work makes possible, or the life style and type of leisure which it facilitates" (p.168).*

Other definitions that Super provides in the same paper are:

Job: A group of similar, paid, positions requiring some similar attributes in a single organization. Jobs are task-, outcome-, and organization centred.

Occupation: A group of similar jobs found in various organiza-

tions. Occupations are task-, economy-, and society - oriented.

Career: The sequence of major positions occupied by a person throughout his pre-occupational, occupational, and post-occupational life; includes work-related roles such as those of student, employee, and pensioner, together with complementary avocational, familial and civic roles. A career exists only as a person pursues it; careers are person-centred.

A different kind of incongruence appears in the literature. It has to do with the use of the two derivative adjectives: occupational and vocational. "Vocation" is usually conceived of as a concept having more psychological content, as opposed to "occupation". Crites (1969) indicates that "occupational" designates stimulus variables, whereas "vocational" response variables. It is our belief though, that some additional considerations should be borne in mind: Vocational is almost totally absent from sociological literature (understandably so if it is so ego - involving). Besides, it seems that the term "occupational" tends to appear more often in British literature on relevant subjects, both in the fields of psychology and sociology, than in American literature. There is also a tendency for these two terms to be used interchangeably, particularly with reference to choice. Zytowski (1970b) for example, in one page (p.15) uses the term "vocational choice" three times and the term "occupational choice" four times, interchangeably.

The term "occupational" will be used in this thesis, with the exception of quotations or citings, as it can meet the connotative requirements of psychology and sociology. "Career" development and "occupational" development will be used

synonymously: "...Each refers to the lifelong process of developing work values, crystallizing a vocational identity, learning about opportunities, and trying out plans in part-time, recreational, and full-time work situations" (Tolbert, 1980.p. 31).

2. Factors Influencing Occupational Choice

Many different factors have been assumed, or found, to influence or determine occupational choice to a greater or a lesser extent. For a long time, occupational choice was considered a matter of an ideal match between the individual's characteristics and those of the occupation. The psychology of occupational choice has been for a long time differential in its approach.

Only after the first developmental theories appeared, was there a shift from the psychology of individual differences to a social-developmental approach that started taking into account concepts such as socialization, and factors such as social structure and family. In this respect, it must be pointed out that the British contribution had a very important role to play.

Before we proceed to an examination of the main theories of occupational choice, we shall examine some of the main factors that have been assumed to influence or determine occupational choice. Many of these constitute basic parts of sociological or psychological theories, but here they will be examined in isolation, because it is believed that in this way their particular role in the occupational choice process will become clearer. Both sociological and psychological research and theory will be considered. We shall not adhere strictly to occupational choice viewed as job entry but, where necessary, we shall refer to the closely related subjects of educational choice, manpower recruitment, and employment. The latter are key - concepts in

present day sociological inquiry into the subject.

2.1 Aptitudes-Abilities

Abilities tend to fall into two major types: the verbal-educational (v:ed factor) and the spatial- perceptual- practical (k:m factor), as British factor - analytic research has shown (Burt, Vernon). Whereas "ability" refers to a current level of achievement, "aptitude" denotes a basic innate capacity, or special ability above the general level (e.g. music, drawing) and has a predictive reference. Sometimes, though, the terms are used interchangeably. They have both been used extensively in an effort to find an ideal match between abilities and jobs for the purpose of placement or career guidance.

There seems to be some divergence between British and American evidence concerning the relationship between aptitudes and jobs. The General Aptitude Test Battery (GATB) and the Differential Aptitude Test (DAT) seem to have yielded in the US suitable aptitude profiles with their relevant norms. Both batteries employ eight tests and they have been used extensively in career guidance (Cronbach, 1970). Their predictive validity, though, seems to be rather low.

In Britain the picture appears somewhat different. Vernon (1953; 1960; 1961) having worked with a more varied sample (British servicemen during the war) is rather doubtful whether vocational guidance can ever be reduced to the application of a battery of tests for measuring all the main ability factors, and expecting an individual's pattern of factor scores to tell us

what job he is suited to. According to Vernon and Parry (1949), ability tests can give some useful indication of vocational suitability in the less specialized jobs, where manual skills are involved or where personality qualities are of greater importance than intellectual skills (e.g. business or teaching).

Differentiation of persons in abilities must be seen as a multipotentiality and not as a unique outlet for occupational orientations. Abilities may prescribe the limits within which one may be expected to perform, but it is doubtful that many choices are based on this factor alone (Herr, 1970, p. 43).

2.2 Interests

Interests have been defined as the activities and objects through which people seek their objectives (values) (Super and Bohn, 1971). Zytowski (1970b) gives a more idiosyncratic definition of interests: a relationship between persons and objects or activities expressed by the terms like, indifferent, and dislike, or preferred and not preferred (p.51).

There is strong evidence that occupational membership and its stability can be predicted from inventoried interests (Strong, 1955; Cronbach, 1970; Nelson, 1968), although it has recently been contended that expressed interests can be very reliable predictors, too (Borgen, 1978). Yet, as most interest inventories relate groups of interests to groups or clusters of occupations of essentially different nature, as far as the status and specific context are concerned, we cannot hope that occupational choice can be predicted or determined by interests

alone. It may be that interest inventories are of real utility for only a limited number of persons, those who can have access to a variety of occupations or want to maximize their future occupational satisfaction (Zytowski, 1973) and to whom the content of work is salient.

2.3 Sex

The role of sex in occupational choice has not been examined extensively, probably because it has been taken for granted that the differences between the two sexes are more than biological. Besides, women entered the labour force only relatively recently, in the sense that they could pursue careers similar to the ones of men.

Characteristic of the restrictions of an earlier social structure upon women's occupational choices are Psathas' (1962) conclusions derived from a study of female nurses in the US. According to Psathas, although many different factors are related to work orientations and occupational decisions in women, their effect is mediated by the sex role: *"Among first order relationships between sex role and occupational entry are the intention to marry, time of marriage, reasons for marriage, and husband's economic situation and attitude toward his wife's working"* (p.257). In the important period after leaving school, according to Psathas, the major consideration on the part of the girl and her parents is the acquisition of skills and qualities which will make the girl more "marketable" in marriage terms. In this way, marriage considerations modify educational and occupational choices. Prospects for having children, and the

timing of births are also sometimes influential factors. Ultimately, the whole subject is a matter of socialization of the girl and transmission of parental values.

Psathas' suggestions could be taken as indications of what was happening a quarter of a century earlier, and one could argue that things have recently changed drastically. Yet, recent research suggests that, although many formerly typical masculine occupations are now taken up by women and consequently women's attitudes and considerations have changed, the situation does not yet allow obliteration of the variable "sex" in considering occupational choice.

Thus, Super and Bohn (1971) suggest that women's career patterns could be characterized as interrupted or double-track careers, as the conventional career for women is that of working and then devoting full time to homemaking, while the interrupted pattern of working, home-making, and working again, is increasingly common. Watson (1980) points out that, although a female labour force has grown up, the cultural image of female work as part of a secondary role has tended to keep women within a secondary labour market, which is characterized by inferior conditions, pay levels, opportunities for advancement and less fair treatment at work, compared to the primary sector, which mainly recruits privileged minorities in terms of qualifications and even sex or race. As Gibb (1983) reports, in 1977 about one third of all girl school leavers without GCE A levels who went on to further education, went straight to secretarial training, as opposed to considerably fewer boys without GCE qualifications

who chose to study on full - time secretarial courses, and she adds: *"secretarial work therefore exemplifies the sexual division of labour and this is reflected in the gender specificity of students' training programmes"* (p.182).

Recent research in Britain (Fogelman, 1979) based on a large sample of over 10,000 boys and girls, part of a longitudinal study of children born in the week 3-9 March 1958, has come to corroborate such speculations. Whereas 10.3 percent of the boys named an occupation in the broad category "professions" as a likely job and 91.5% of those who named it as a likely job also named it as an "aspired job", the corresponding percentages for girls were 2.4 and 91.5. Of the boys 20.2% named engineering as "likely" job, and 86.6% of these as "aspiring", while the corresponding figures for girls were 0.2 and 83.3% respectively. On the other hand, "caring", "shopworker", and "clerical" jobs were named as "likely" significantly more often by girls (12.8%, 14.2%, and 30.4% of the girls, as opposed to 0.4% , 2.8%, and 3.7% of the boys). In the same study, the dominant aspect of jobs for boys appeared to be "good pay", whilst for girls "the opportunity of helping others" and "variety". "Pay" took a much lower place in girls' priorities.

It seems that sex plays a very important part in the occupational choice process, not only because there are culturally developed stereotypes in both sexes, as far as work is concerned, but also because the practices of both governments and employers seem to be subject to the influence of sex discriminating stereotypes (Osipow, 1976; Garbin and Stover, 1980).

2.4 School

Morrison and McIntyre (1971) suggest that we can distinguish three major ways in which educational experience may be related to occupational decision-making:

- 1.The influence of school subjects on forming occupational preferences.
- 2.Educational decisions may limit the range of occupations which one is qualified to enter.
- 3.Occupational information and/or counselling received at school may influence both the process of making a decision and the occupation decided upon.

Maizels (1970) suggests that differences in occupational preferences appear to be strongly related to educational performance. She found that ambitions were modified by academic limitations to a greater extent than one could attribute to social background. Having worked with a British sample, before the introduction of comprehensive schools, she also emphasized the influence of streaming on occupational choice. Ashton (1975) also found that streaming, where it exists, denies young people the opportunity to develop their cognitive and manipulative skills. They are committed, by their education to special kinds of work.

In general, it seems that the educational system can sometimes be biased for or against children of different social origins. "Modern" or similar types of school, when they existed in Britain, used to have a higher than average proportion of children from blue-collar families (Cox, 1976). But the oppo-

site seems also to be true: selective schools, like grammar schools in the recent past, although of heterogeneous intake in terms of social origins, appeared to be much more homogeneous in the educational destinations that they provided for their pupils, as the results of the Oxford mobility study indicated (Heath and Ridge, 1983). The same group of researchers conclude that it is the material and the cultural background of the family which largely determines choice of school (Halsey, Heath, and Ridge, 1980). The Cambridge group (Stewart et al., 1980) find increased advantages when higher class background is combined with higher type of school. Middle class children tend to stay longer in formal education (Douglas, 1968) and to show higher attainment (Douglas, 1968; Rutter, 1979). Recent evidence shows that social class membership and not culture or IQ seem to be the main determinants of educational career (Halsey et al., 1980). In conclusion, we can say that the extent of the influence of the school on the educational and occupational career of the young people cannot be easily distinguished from the influence of the social and home background.

2.5 Home

The home environment can influence children's occupational choices, either in the form of direct intervention, or more frequently, in the form of the transmission of parental values and attitudes. This influence is reflected in the similarities in occupational membership, between parents and children. Cultural and subcultural norms, as well as local or national economic or opportunity structures, can also be the causes of such similarities.

Carter (1966) saw entry into work as a result, to a large extent, of the influences of the home environment. He proposed the following types of home and social environment, indicating the relative influence of each one on children's attitudes and aspirations:

a) The home-centred, aspiring type of home environment, which can be subdivided into:

1. Traditional respectable ;

2. Newly affluent;

b) Solid working class;

c) Rough, deprived and under-privileged.

These types of home are characterized by particular attitudes towards children's (sons' mainly) occupational choices. We shall refer to Carter's types of home environment in somewhat more detail because, if they seem to be outdated in present day Britain, we think that some of the evidence from our study shows that similar phenomena may still exist in other cultures. In the "home-centred" type some parents take the view that occupational decision-making rests with them. Others, again, decide on what they believe to be a sensible occupation and then, by hint or persuasion, try to transmit their beliefs to their children. The most common attitude, with this type of family, is the parental insistence that certain criteria are met in the son's occupational choice.

In the "solid working - class" type of home, the kind of home life usually does not allow the children much scope for choice,

except for "run of the mill" jobs, similar to the ones their fathers, brothers and sisters, and friends have. In general, *"the particular sort of work is not thought by most parents to be of great importance "* (1966, p. 54).

In the "rough" type of home, parents take little or no interest in the type of work that their children take, provided they accept the view that the wage is the most important thing. *"These children are ready - made for the 'dead - end' jobs"* (p. 59).

Carter sees entry into work as a kind of indoctrination which is effected by the continuous contact of the children with the father's job, its nature, its wages etc., and through talks about work, wages, working hours, and visits to the place of work. Thus, the range of occupations with which the child has contact is restricted, with the result that his range of choice is also seriously limited.

There is strong empirical evidence that young people seek jobs identical or similar to the ones of their fathers. Douglas (1968) found that only 13 percent of the boys and 9 percent of the girls of his national sample wished to take up work in a group of jobs (from the broad categories of professional, non-manual, and manual) different from that hoped by their parents.

According to Argyle (1972), children have been found to choose the same occupation as their fathers, more than could be expected by chance and, if they do not enter the same

occupation, they are likely to enter one with similar values or pattern of activity. Similar views have been presented by Super (1957), Ashton and Field (1976). Morrison and McIntyre (1971) suggest that occupational inheritance is observed more often in families which have made capital investments, or in isolated and specialized communities (farming, mining etc.).

Sewell and Shah (1968), examining a large sample of American high school seniors, found that parental encouragement, in connection with socioeconomic status and intelligence, had a very important influence on college plans of males and females. Taylor (1979) in his survey of engineering students, found that the sons of professional engineers, managers or industrial executives, were more likely to have a "strong managerial" orientation than the sons of technicians or skilled manual workers, who correspondingly were more likely to have a "strong technical" orientation. This finding reflects influences of socioeconomic status, something that is also examined in their survey. Finally, Goodale and Hall (1976), examining a sample of 437 American high school sophomores, found a relationship between plans for college and the students' perceptions of their parents' interest in their school work, and parental hopes that their children will attend college, whereas perceived involvement and pressure, representing active attempts by parents to influence their child's school work and future goals, had no direct relationship with the children's future plans.

Our view is that similarities in occupational membership between parents and children can be attributed to three main factors:

a)Transmission, through socialization, of work and life values, norms, roles, and attitudes (Inkeles, 1969; Moore, 1969; Musgrave, 1967).

b)Local opportunity structure, exemplified with farming, fishing, and mining communities and areas, or with certain factory and clerical jobs in certain areas.

c)Invested interests, in the case of family businesses, trades of guild nature etc.

Evidence for the operation of all three factors was also found in the study reported in this thesis.

2.6 Aspirations and Goals

Aspirations and goals are the end products of the influences of the home, the school, and the social environment on the one hand, and the individual's perceptions of his abilities, aptitudes, and interests on the other. Moor (1976) distinguished three levels of goals: aspiration, anticipation, and normative expectation. The level of aspiration refers to a goal, or amount of a goal a person feels is worth striving for, even though he or she is unlikely to reach it. The level of anticipation refers to a goal, or amount of a goal, that represents what a person believes he or she will in fact achieve. It is likely for it to be lower and more realistic than the level of aspiration. Normative expectation refers to goals individuals feel and believe are normatively appropriate for their individual social

standing, experiences, and present life stage.

The differential level of aspiration can be viewed, sociologically, either in terms of a consensus functionalist approach, or in terms of a conflict theory approach. In the former case it is considered the result of subcultural socialization, and talents and abilities are thought to determine occupational choice, whereas in the latter case, aspirations constitute an effort on the part of deprived adolescents to obtain what they have been refused by the dominant classes (Baldcock, 1974).

There is considerable evidence in support of the existence of class differences in aspirations. Thus, Kelsal (1972), working with a British sample of university students, found that students from working class homes tended to find higher education in practical and vocationally oriented subjects, and they were over-represented in science and technology faculties. If we take this to be a true result of differential aspirations, and not of selection, then we could possibly connect it with Cox's (1976) view that, in the working class low expectations and aspirations, with respect to intrinsic rewards, tend to strengthen the individual's receptivity to the widely propagated message that only extrinsic rewards of work are important. Thus, over-representation of working class students in practical and vocationally oriented subjects could be viewed as either the result of educational selection or of the pursuit of extrinsic rewards and of immediate gratification.

Similarly, Morrison and McIntyre (1971) suggested that middle classes tend to think of careers and to emphasize the

intrinsic satisfaction gained from work, while working class people tend to think of jobs, in which the best they can hope for is security, respectability, and pleasant interpersonal relationships. Congruent to this is Ashton's (1974; 1975; Ashton and Field, 1976) distinction of career patterns into "careerless" (lower working class), "short term" or "working class" careers (upper working class and lower middle class), and "middle class" or "extended" careers (upper middle, and upper classes). This distinction, based on evidence collected mainly in the Leicestershire area, is attributed to the acquisition of different frames of reference and self-conceptions by different groups in society, which serve to establish certain orders of relevance and types of rewards, which can only be realized in specific types of occupations.

Moreover, we have been reminded (Willis, 1977) that occupational aspirations may be missing altogether, as was the case with his sample of "disaffected" working class boys. For them most manual and semi-skilled jobs were the same and he adds that it is a very middle class construct to think of their entry into work as a matter of particular job choice: *"The 'lads' indifference to the particular form of work they enter, their assumption of the inherent meaninglessness of work, no matter what kind of 'right attitude' they take to it, and their general sense of the similarity of all work as it faces them, is a form of cultural penetration of their real conditions of existence as members of class"* (p. 136).

Summing up, we can say that aspirations and goals are to a large extent influenced by the individual's immediate social

environment and frames of reference. In this respect occupational choice could be seen as an individual act of limited scope, since the boundaries within which an individual can move are prescribed by social norms, which in turn reflect economic and social structures. This can be true to a certain extent, but one could argue that it cannot be totally true, as inter- and intra- generational mobility trends have shown (Lipset and Bendix, 1959; Blau and Duncan, 1967; cited in Heath, 1981), which of course are the result of the expanding economy of industrial societies, an expansion that was accompanied by increased recruitment to higher level occupations. But if one takes a functionalist viewpoint, one could counter-argue that this mobility was only a temporary trend in an expanding industrial economy and that opposite trends have started making their presence felt. Our own view is that beyond the consensus-conflict sociological debate (or within each) the mechanisms of both mobility and immobility in aspirations can be examined within the broad theory of values, their acquisition and their transmission, and such an approach will be the core of this thesis. This view also covers all other aspects examined in this section, with the possible exception of aptitudes and abilities, but even the pursuit of actualization of certain aptitudes and not others can be viewed within value theory.

In this chapter we presented a fragmented view of the occupational choice process. We examined in isolation some of the factors that may influence it or determine it. All these factors have also been presented, in one way or another within the framework of integrated theories of occupational choice, which we are examining in the next chapter.

3. Theories of Occupational Choice and Career Development

3.1 Classification

Different classifications of occupational choice theories have been suggested. Hilton (1962) referring to the occupational decision-making process distinguishes five possible models: the Attribute-Matching Model, the Need-Reduction Model, the Probable Gain Model, the Social-Structure Model, and the Complex-Information - Processing Model. Osipow (1968) placed career development theories under four categories: a) Trait - Factor Approaches; b) Sociology and Career Choice; c) Self - Concept Theory; and d) Personality Theories. Herr (1970) blends together Hilton's and Osipow's classifications presenting the following six categories: Trait - Factor or Actuarial, Economic, Social Structure, Complex Information Processing, Need Theories, Self-Concept Theories.

Some sociologists have proposed a dual classification: a) The Individual - Ambition Model, which encompasses almost all psychological theories, and b) the Opportunity - Structure Model, which includes mainly sociological theories (Speakman, 1976).

Crites (1969) employs three broad classifications with subdivisions: a) Nonpsychological Theories (Accident, Economic, Cultural, and Sociological); b) Psychological Theories (Trait-and-Factor, Psychodynamic - in which he includes Psychoanalytic, Need, and Self Theories - Developmental Theories, and Decision Theories); c) General Theories (Blau et al's Interdisciplinary

Approach, and Holland's Typological Theory).

Super (1981) has recently presented a totally new taxonomy. He classifies all theories in three main categories:

| <u>Matching</u> | <u>Developmental</u> | <u>Decision-Making</u> |
|------------------|----------------------|------------------------|
| Differential | Life stages and | Process |
| Aptitudes | identification | |
| Personality | | Style |
| Situational | Life span, life | |
| Structure | space and perso- | |
| Context | nal constructs | |
| Socialization | | |
| Phenomenological | Stage and Deter- | Process-Style- |
| Self-Concept | minants | situation |
| Congruence | Path Models | |
| | Regression Models | |

Super's taxonomy is interesting in its effort to include much new material that has been added to the occupational choice literature in the past few years but his categorization could be criticized in some respects: It adds confusion to an area that has not had firm boundaries so far, it probably uses some redundant categories, and more important, it makes a conceptual simplification by classifying sociological theories under the matching theories. The present writer believes that sociological theories constituting a different disciplinary approach should be examined separately, as has generally been done so far, not to preserve traditional disciplinary separation, but in order to

preserve basic theoretical and conceptual differentiation between related but different disciplines. In any case, we feel that "matching" is not the suitable label for both structural and socialization sociological approaches.

The main theories of occupational choice will be presented in the following sections of this chapter. Theories will be classified in two main categories: psychological and sociological. In the sociological section some of the theories presented could be described better as models dealing with isolated aspects of the choice process, something that is also true with some of the psychological theories. This is not the result of inadequate theorization on the subject on the part of sociologists but a result of the conceptualization most commonly adopted by sociologists: they would rather conceive of it as recruitment or employment thus placing all the emphasis on the institutional and structural aspect of the process, rather than on the individual aspect.

Some of the theories will be presented in more detail than others, while others will be very briefly described or simply mentioned. This was done on the basis of two considerations: a) How relevant is the theory to some of the approaches adopted for the design of this research, and b) What impact the theory had had after it was presented. The classification adopted here originates from Tolbert (1980) with some modifications and additions.

3.2 The Accident and Economic Theories of Occupational Choice.

The Accident theory has been described as the "St. Paul on the road to Damascus" (Hopson and Hayes, 1968). It emphasizes the role of chance occurrences in a person's life and how these influence occupational decision-making. A favourite example is Malinowski's transition from chemistry to anthropology after reading Fraser's "Golden Bough". In most cases "chance" is taken to mean an "unplanned" exposure to a powerful stimulus" (Ginzberg et al., 1951). As it has been observed though, responding to such a stimulus is not something that happens by chance, as different individuals have different perceptions of the same stimulus and different responses (Hayes and Hopson, 1972).

In economic theories "the assumption is made, based upon Keynesian economic theory, that one chooses a career or an occupational goal that will maximize his gain and minimize his loss" (Herr, 1970;p.70). Only laws of supply and demand restrict the individual's freedom of choice.

The main precepts of these two theories have been incorporated in decision making, motivational, and developmental theories. The "chance" aspect has been included in the social learning theory of occupational choice.

3.3 Trait and Factor Theories of Occupational Choice

The trait-and -factor approach originates from Parsons (1909) and is based on the psychology of individual differences. It

grew up from the needs of career guidance practitioners who were trying to match the individual's personal characteristics with those required by the chosen or considered occupations. The logic behind it is that individuals differ in their aptitudes, interests, and personalities as occupations also differ in their requirements, in terms of traits and factors. An ideal choice would be the one that could match the individual's traits with the requirements of an occupation.

This approach is typified in practice by matching the interest and ability profile of the individual with the likes and the dislikes of different occupational groups or with the activity profiles of different jobs, and it seems to have dominated the career guidance scene up to the early 1950s (Hopson and Hayes, 1968; Hayes and Hopson, 1972).

The Trait and Factor approach has been criticized as being atheoretical, that it overlooks the needs of the individuals, and that it is very simplistic in differentiating between occupational groups (Hopson and Hayes, 1968; Crites, 1969; Super and Bohn, 1971). However, this theory that has been described as the "three interviews and a cloud of dust" approach has been very convenient to practitioners and is "as viable today as it was in the yesteryear, and it finds an expression, in one form or another, in most of the other approaches" (Crites, 1978 pp.27 and 51).

Our view is that such an approach, besides its other weaknesses, seems too idealistic in present day economic recession and mass unemployment when, even if a matching profile

has been defined and agreed upon, eventual job entry is far from guaranteed, if that is supposed to be the purpose of the whole process. In this way the usefulness of this method is restricted for those people and societies that the constraints on choice do not render such approaches redundant.

Holland's theory cannot exactly be described as a trait theory, although it has sometimes been classified as such, because it includes a multiplicity of factors and variables: personality traits, developmental and situational factors, need theory, role theory, and self theory. Its basic characteristic though, is matching individual characteristics with characteristics in the environment. A very brief description of the theory will be made here which will be disproportionate to the impact the theory has had in terms of the amount of research that it has instigated (Super, 1981).

Holland (1959) assumes that at the time of occupational choice the person is the product of the interaction of his particular heredity with a variety of cultural and personal forces including peers, parents, significant adults, his social class, his culture, and the physical environment. Out of his experience the person develops a hierarchy of habitual or preferred methods for dealing with environmental tasks. These habitual methods are associated with different kinds of physical and social environments, and with different patterns of abilities.

Six occupational environments and six personality types are postulated, bearing sets of matching names: Realistic,

Intellectual, Social, Conventional, Enterprising, and Artistic (Holland, 1966). Later (Holland, 1973), "Intellectual" was renamed "Investigative". People can be characterized by their resemblance to one or more of these personality types and are assumed to seek the environment type more appropriate to their personality type. There are different degrees and combinations of "purity" of personality type and of personality-environment congruence.

We totally agree with Holland's own appreciation of the strengths and weaknesses of his theory (Holland, 1978; pp. 164-165), i.e. that it is clear, consistent, it has been supported by extensive research and counselling practices, on the one hand, but not irrefutably tested, and not universal in its approach, on the other hand.

3.4 Developmental Theories of Occupational Choice

Developmental theories of occupational choice have been the most influential in both theory and practice, at least in the US, for over thirty years now. They have been challenged only recently by sociologists who tend to place emphasis on the social and economic structure rather than on psychological development. Yet it seems that developmental theories are still widely, if not universally, employed in the practice of guidance. Developmental theories propose that the decisions involved in the choice of an occupation are made at different points in an individual's life and that they constitute a continuous process, which starts in childhood and continues into

adulthood. A central assumption in these theories is that just as there are critical periods of physical and psychological development with relevant developmental tasks, career development is effected in a specified and almost universal way and has its own periods and tasks.

The first developmental theory was put forward by Ginzberg, Ginsburg, Axelrad, and Herma (1951). On the basis of the analysis of interview data they concluded that occupational choice is a developmental process taking place over a period of time in three main periods (fantasy, tentative, and realistic) that correspond to specific age periods. Each step in the process has a meaningful relation to those that precede and follow it. The process is largely irreversible, in the sense that each decision made is dependent on the chronological age and development of the individual and that the entire process of decision-making cannot be repeated; later decisions are limited by previous ones. The process finally ends in a compromise, since the individual seeks to find an optimal fit between his interests, capacities, and values and the world of work.

Ginzberg, in a later paper (1972) revised his theory on the three critical elements of process, irreversibility, and compromise. He epitomizes this revision in this new statement of the theory: *"Our reformulated theory is that occupational choice is a lifelong process of decision-making in which the individual seeks to find an optimal fit between his career preparation and goals and the realities of the world of work"* (p.172).

Ginzberg's main contribution has been that he shifted the focus of occupational research from the trait- and- factor approach to a developmental one. He was also the first to draw attention to reality factors and the constraints on choice, as well as to the important role of personal values in an individual's development.

3.5 Super's Developmental Theory. The Self - Concept

Super (1953; 1957) criticized Ginzberg's theory mainly on a conceptual basis and put forward his own theory, in his now famous ten propositions. Differential, developmental, social, and phenomenological psychology, trait- and- factor theory, self- theory, developmental and sociological approaches are incorporated in these ten statements. Recently, Super (1981) in view of his reformulation of the theory pointed out that as of 1957 (Super and Bachrach, p.120) the ten propositions usually reported had become twelve, and he proceeds to present these twelve propositions as a summary of his past position.

The self- concept, its development, and its implementation in occupational choice are the central issues in Super's theory. He distinguishes five life stages with respect to occupational development: Growth, Exploration, Establishment, Maintenance, and Decline. Each stage is associated with a specific age period and relevant developmental tasks. The process through the stages, the early ones in particular, can be guided by facilitating the process of maturation of abilities and interests and by aiding the development of the self-concept, which is viewed as the product of the interaction of inherited aptitudes, physical make - up, role playing. This process culminates in a compromise between the self-concept and reality factors. The nature of a career pattern is determined by the individual's parental socio - economic level, his mental abilities and personal characteristics, and by the opportunities to which he is exposed. Finally, in propositions 11 and 12 he proposes that job satisfaction is proportionate to the degree

that the self-concept has been implemented and that work may not be the main issue in some people's lives.

A huge body of empirical research has investigated different aspects of Super's theory, usually finding support for the theory. As the research was conducted mostly in the US, it is still open to question whether similar stages and developmental tasks can be identified in other cultures or even in different social groups within the same culture. Doubts as to that can be traced in the theory, thus the concept of career pattern is introduced.

A career pattern is the way an individual progresses through the life stages. This progress takes place in a linear, uniform manner. Some people reverse their choices, others never become established, and so on. Such varying patterns were first identified by Miller and Form (1951) and were later adopted by Super (1957; Super and Bohn, 1971): Career patterns can be stable (direct entry into work), conventional (trial leading to stability), unstable, and multiple trial ones. Their determinants can be psychological (intelligence, aptitudes, interests, values, needs), social (socioeconomic status, education, family situation, religion, race etc.), economic and general (business cycles, economic booms and depressions etc.). Since economic and social factors can influence the career patterns, it is open to question as to what extent these do not take independent ways in different cultures and this question could be extended to the developmental stages and the vocational tasks associated with them (cf. Kidd, 1978). If we seek historic evidence, most probably we shall not find support

for their universality (eg. early industrial society).

Most of the empirical research connected with Super's theory has aimed at defining vocational maturity and the self-concept.

Vocational maturity denotes the degree of development, the place reached: "It is shown by behavior in coping with the tasks of vocational development that is mature compared with that of others dealing with the same tasks" (Super and Bohn, 1971; p.120). Vocational maturity was investigated through the Career Pattern Study, a longitudinal study that began in 1951 and followed up a group of pupils from the age of 15 to the age of 36. The main findings, which were not impressive, have been reported by Super and Overstreet (1960) and Jordaan and Heyde (1979).

The self-concept is partly an outgrowth of phenomenological psychology, which states that an individual reacts to reality as he sees it. It is the picture one has of oneself. In occupational life a person considers the kind of individual he is and as he considers the types of people in different jobs he comes to the conclusion that he is more like some workers than like others, that some persons in some occupations have characteristics similar to his own.

As the individual grows older, he integrates the various pictures he has of himself into a consistent self-concept, which he tries to preserve and enhance through all his activities, particularly the occupational ones. He attempts to select an occupation which will be compatible with his self-concept and

which will allow it to become a reality by permitting him to play the role he wants to play (Crites, 1969).

Self-concept theory and its counselling applications have been widely accepted: *"Its theoretical simplicity, its easily used methodology, and its intrinsic appeal in a society in which self actualisation is a widely accepted objective, made it something of a fad in the USA in the 1960s"* (Super, 1981; p. 18). Yet, it is interesting to note that Super himself (1981) has isolated self-concept theory in his later classification, placing it under "Matching Theories", whereas he presents his main developmental theory (newly formulated) in the "developmental theories" category. Although he never denounced overtly the applicability of the theory, he recently referred to it as *"an early attempt to relate personal and situational data"* (speaking of his 1951 formulation) and points out that in later explorations the social context was not emphasized (Super, 1981; p. 17, 18). Kidd (1984) working with a British sample has recently provided partial support to the theory. It seems that *"many youngsters do make career decisions with reference to concepts of self and occupation. There were, however, some indications that self-concept theory is more applicable to more able youngsters, and to those high in self-esteem, than to others"* (p.25-26). For the less-able, lower- self- esteem youngsters it seems that modelling processes and the influence of significant others were more influential factors in their career decision-making.

In his latest formulation of his theory Super (1976; 1981) places more emphasis on role playing: he identifies nine major

roles in an individual's life space and four theatres in which these roles can be played. The roles are (1) Child, (2) Student, (3) "Leisureite", (4) Citizen, (5) Worker (and unemployed worker or Non-worker), (6) Spouse, (7) Homemaker, (8) Parent, and (9) Pensioner. The theatres in which these roles are played are: (1) the Home, (2) the Community, (3) the School (including College and University), and (4) the Workplace. In the interplay of roles, theatres, and developmental stages, Super adds a decision making model with decision points denoting either mini-cycles of problem-solving or maxi-cycles of life stage transition. He calls the new model "Developmental Model of Emergent Career Decision-Making". The decision making process is summarized thus: *"The individual pursuing a career becomes aware of an impeding career-decision, formulates the question, reviews his premises, identifies facts needed to round out his understanding of the situation, seeks these data, evaluates and weighs the old and the new data, identifies the alternative lines of action, considers their various possible outcomes and their respective probabilities, weighs the alternatives in terms of his values and objectives, selects the preferred plans of action, stores the alternatives for possible future reference, and pursues his plan on either an exploratory basis or with a more definitive but still tentative commitment. In either case there ensues more data collection through the evaluation of outcomes, with modification of plans or with recycling.."* (Super 1976; p.20).

A lot of space has been dedicated to Super's theoretical formulations because they have been by far the most influential in present-day occupational psychology, have caused a lot of

research (and controversy), and have been widely accepted by guidance and counselling practitioners. One major advantage of the theory and its author is that they are open to review, adaptation and adjustment. Thus, the original model has been modified over more than thirty years. His most recent formulations cannot be unrelated to his long contact with British mainly, and European in general, speculations on the subject, through the Work Importance Study, an international project which he directed. This must have offered more insight into occupational development (or its equivalent) in other cultures, in which there appear constraints on occupational choice, and factors involved in the process, other than the ones that can be observed in the United States.

Another developmental theory that attracted less attention than Super's is the one presented by Tiedeman (1961). He also emphasized the need for a deeper examination of the decision-making element in vocational development. He distinguishes two periods of decisions that characterize vocational development, a period of anticipation and a period of implementation. The model was further developed by Tiedeman and O' Hara (1963). It appears to be rather descriptive in its nature and, thus, not easily testable. Later clarifications and developments of the model (Tiedeman and Tiedeman, 1979) do not seem to add to its testability, as new concepts and questions are introduced of existential and philosophic nature.

3.6 An Evaluation of Developmental Theories

Crites (1978) in his review of occupational choice theories concludes that developmental counselling "is the most comprehensive and coherent system of assisting clients with career problems which has as yet been formulated" (p.44), and of course one can assert that this is due to its good theoretical underpinning. Yet, developmental theories have been attacked recently, particularly by sociologists, as we shall see later.

The main criticism of developmental theories is not that they do not hold elements of truth, in general, but that they refer to certain categories of people, and more specifically to middle-class people of average and above average ability. The question of their applicability in Britain has been raised several times (e.g. Roberts, 1968; Kidd, 1978) but more recently it seems that similar questions arise in the United States, too, and it would not be too risky to assume that this would be true for developing countries, and generally for countries and cultures that did not follow the post-war developments which took place in North America and Western Europe.

While both Super and Ginzberg identified some constraints on occupational choice, particularly the ones imposed by family, income, social class and education, they did not deal very explicitly with the impact these may have on the developmental stages, although, admittedly, Super tried to tackle similar issues in his later formulations.

In all, it can be said that developmental models first appeared in America in the mid-fifties and sixties, when it was not even envisaged that one might have all the prerequisite abilities, qualifications, and ambitions and yet not be able to pursue a career to which one has committed oneself. Besides, the impact of social class membership on value formation and occupational development had not been examined thoroughly. Moreover, neither economic constraints nor the impact of a depressed or state-directed economy on career development were considered.

Developmental theories are still the most comprehensive that occupational choice literature can offer, but it is doubtful whether they will continue to be so considered in the post industrial society that is just emerging, where it is speculated that work will be replaced as a life time commitment and as the central issue in people's lives, by other vocations not yet clearly identifiable. It is worth noting though, that Super's current formulation allows for roles such as those of "leisurite" or of "non-employed worker". In addition, the prescriptive nature of the developmental stages does not allow much scope for the examination of the impact of state intervention in planning the economy, among other things, in terms of employment and manpower supply.

In general, we believe that, although the basic tenets of developmental theories of occupational choice might hold in the context of an industrial society in which allocation of labour, manpower training and preparation were planned in a way that would match physical and psychological development (and the

development of the educational system in the past 100-150 years is a good example), this whole process should be seen as a social artefact rather than an inherent characteristic of the individual, as developmental theories tend to maintain.

As the postwar years of rapid economic development in the West are now being followed by recession, unemployment, redesigning of the division of labour, extension of formal education and earlier specialization, it should be expected that the proposed developmental stages and tasks would be under revision and reconsideration. It may be that in a few years' time new developmental approaches will be needed to explain what will be going on in terms of the occupational choice and allocation processes.

As a conclusion, it can be said that developmental theories should be seen in a temporal, societal and cultural context. They seem to describe well occupational development within the general context of psychological development in advanced industrial societies. Their descriptive value though, is diminished by their inadequacies in explaining the mechanisms of such processes, as well as the impact of social institutions on them. In addition, in strict psychological method, they have also proved inadequate in linking manifested behaviour with some form of prediction. If such qualities are sought in a theory, sociological theories, decision-making theories, motivational models, or even economic theories, could be of more help at the group, or the individual, level of analysis.

3.7 A Social Learning Theory of Occupational Choice

The most recent theory on occupational choice appears to be the social learning theory put forward by Krumboltz et al. (1978a). It shall be presented here in more detail because we consider it to be an alternative to Super's developmental theory meriting special attention, and because it could serve as a supplement to our motivational approach that will be presented in a subsequent chapter. The theory seems to be drawing on the theories presented by (Rotter, 1954; 1972) and Bandura (1963), although there are no direct references to them.

Social learning theory (Rotter, 1954) in contrast to behaviourism, advocates that actions are influenced by mental processes and higher order cognitions. Learning is effected by imitation and by selective attention to appropriate information. Individuals *"discriminate between reinforcing and non-reinforcing environments, develop expectancies concerning the likelihood of goal attainment and construe the world in subjectively meaningful ways"* (Weiner, 1980; p. 230). External situations can play a key role in guiding actions.

The social learning theory of occupational choice sets out to explain how occupational and educational selections are made, taking into account the interaction of genetic factors, environmental conditions, learning experiences, cognitive and emotional responses and a host of other variables examined separately in other theories. Thus, it must be pointed out at the outset that it is so generic in its nature that, as Holland (1978) puts it *"(it is) probably too clear to be called a*

theory" and (it) "lacks both the organizational property and vocational content necessary for most practical applications" (p.129).

Krumboltz et al. (1978a) subsume the theory as follows (p.127):

1. Occupational placement is the result of a complex interaction of genetic components, environmental events and conditions, and learning experiences which result in the development of various task approach skills, i.e. factors (skills, performance standards, values, work habits, cognitive processes etc.) that can both influence outcomes and be outcomes themselves.

2. Career selection is a mutual process influenced not only by decisions made by each individual involved but also by social forces which affect occupational availability and requirements. People select, and are selected by occupations.

3. Career selection is a lifelong process. It does not take place at one point in time, but is shaped by events and decisions that occur from infancy through the retirement years.

4. Career selection is caused - not accidental - but the interaction of causal events is so complex that the prediction of occupational selection for any one individual is virtually impossible with any degree of certainty.

5. Career indecision is due to the unsatisfactory nature of an insufficient number of career-relevant learning experiences or

to the fact that the person has not yet learned and applied a systematic way of making decisions. Indecision is a natural result of not yet having had certain learning experiences. An undecided person has no reason to feel guilty or inadequate.

6. Career counselling is not merely a process of matching existing personal characteristics, but instead is a process of opening up new learning experiences and motivating a client to initiate career relevant exploratory activities.

The theory is much more structured and precise than it appears in the above theoretical framework. It distinguishes four categories of factors that influence career decision making:

1. Genetic endowment and special abilities.
2. Environmental conditions and events.
3. Learning experiences of two kinds: a) Instrumental Learning Experiences (ILE's) and b) Associative Learning Experiences (ALE's). In the former the individual acts on the environment so as to produce certain consequences, whereas in the latter the individual associates previously neutral situations with affective reactions. A fictitious example given by the authors is that of "Roger" who in answer to his teacher's request for a paper on "A Famous Person in Government" writes about Jefferson and then has a stimulating conversation with his father about the impact Jefferson had on shaping the USA (ILE). The same "Roger" sees a film in which law students are depicted as worthy, sensitive, human, thus making the relevant associations (ALE).
4. Task Approach Skills, which were defined above. Again the

fictitious "Roger" may, after hard work, get good marks in school, but employing the same method of work may not be so successful in college.

These four types of influence can lead to three kinds of consequences:

1. Self-Observation Generalizations (SOGs), overt or covert self statements evaluating one's own actual or vicarious performance in relation to learned standards. They are not necessarily accurate but they can be reinforced by the environment;
2. Task Approach Skills which are shaped by prior experience;
3. Actions, i.e. entry behaviour.

A number of testable propositions and hypotheses were presented along with relevant evidence drawn from the literature on educational and occupational decision making (1960-1974):
"Thus the literature analysis and synthesis provided input for theory development and identified evidence relevant to testable propositions suggested by the theory" (Mitchell, 1979 p.50). On the basis of the analysis of existing data Mitchell (1979) found two kinds of factors, positive and negative, (i.e. offering positive or negative reinforcement) influencing preferences and career decision making.

It was noted earlier that Holland criticized social-learning theory as lacking both the organizational property and vocational content necessary for practical applications. One distinct advantage of the theory though, is that it manages to offer a more specific and detailed explanation of the process

that culminates in occupational decision making. It does not profess to provide any means for exact prediction but if explanation is eventually more concretely validated, it can be equally useful for practical intervention at the appropriate point of the process, as suggested by Krumboltz (1978b), if intervention of any kind is sought.

In the study reported in a later chapter in this thesis, an ahistorical model of motivation is employed for the measurement of the immediate determinants of occupational preference. If a historic approach is sought as to how we can trace back some of these immediate determinants, and more specifically how the cognitive processes that evaluate stimulus input were developed, this writer's view is that the social-learning theory could be a very useful tool.

3.8 Decision - Making Theories of Occupational Choice

The theories and models examined in this section are traditionally classified as decision - making theories and models (e.g. Hopson and Hayes, 1968; Zytowski, 1968; Herr, 1970; Jepsen and Dilley, 1974; Super, 1981). A problem that arises, though, is that in some of these surveys there are some additional models that have been classified elsewhere as motivational models. It is not quite clear in psychological literature where decision theory ends and where cognitive models of motivation begin. It sometimes seems to be rather a matter of label than of conceptualization. Models that are closely connected with widely accepted theories of motivation will not be examined in this section, because this would mean violation

of the basic premises of their authors who consider force and action to be more than decision making. Thus Vroom's expectancy model, examined in the decision making context by Super, and by Jepsen and Dilley, will be analysed in a later section. The same can be said for sociological models that have a strong decision-making element: they will be examined in the section on sociological theories.

Hilton (1962) presented an occupational decision-making model based on Festinger's (1957) theory of cognitive dissonance. A state of cognitive dissonance is one of psychological discomfort which motivates the person to achieve "consonance", a psychological equilibrium. This can be accomplished by dissonance reduction. In Festinger's formulation dissonance reduction strategies follow a decision, whereas in Hilton's model this sequence has been inverted; efforts to reduce dissonance precede decision-making. The person examines his beliefs and expectations and, if dissonance is raised above the tolerable level, revises either the premises or the intended behaviour.

Ziller (1957) introduces willingness to take risks into occupational decision-making. An individual choosing an occupation can be compared to a gambler *"who must decide what he is prepared to wager for a given prize under certain expectations of success"*.

According to Gelatt (1962) when the individual is required to make a decision he is aware that there are at least two possible courses of action. Data are collected and the individual's

prediction system is operating in the first stage when possible outcomes and their probabilities are being assessed. The value system is operating in the next stage when the desirability of different outcomes is estimated. The third stage is that of evaluating and selecting a decision, terminal or investigatory. The investigatory decision becomes a cycle through additional information gathering, and the same can be true with the terminal decision if it involves new information which would require reconsideration.

Hershenson and Roth (1966) view occupational decision - making within a developmental framework. Two basic trends are distinguished in an individual's vocational development: in the first the range of possibilities available to the individual is narrowed, and in the second the possibilities that have remained are strengthened. Through these two processes of successively narrowing alternatives and strengthening the remaining ones the individual arrives at his career choice.

Decision - making has recently come to be seen as the "essence of career development" (Super, 1981): *"Just as career - development theory embraces occupational - matching theories, so does it now embrace decision- making theory"* (p.92). Our view is that decision-theory within the broader scope of cognitive motivation can be a very fruitful approach for the explanation of the mechanisms and determinants of choices and preferences. In a later chapter we shall examine in more detail how occupational choice can be viewed in a cognitive motivational context.

3.9 Sociological Theories of Occupational Choice

a. Sociological versus Psychological Explanation.

Psychological examination of different problems is often addressed at the determination of social behaviour by those characteristics of the human species that are either unique to it or at least drastically different from those displayed by other species e.g. symbolic communication, motivation, cognitive and motivational features of socialization, whereas similar sociological questions are concerned with the social, economic and political structures determining behaviour (Tajfel, 1972).

Although some branches of sociology and some branches of psychology overlap, to the extent that sometimes it is impossible to distinguish sociological work from psychological work, some sociologists (and psychologists for that matter) attempt to set firm boundaries and to assign groups and group behaviour to sociology, and individual behaviour to psychology. Shaw and Constanzo (1982) define sociology as *"the systematic study of the development, structure and function of human groups conceived as organized patterns of collective behavior"*. Sociologists, according to them, are interested primarily, but not exclusively in group behaviour, institutions, and intergroup relations, as well as in the ways *"behaviors of people are similar or different because of group membership influences"* (p.6). Watson (1980), defines sociology as *"a study of the interrelationships between the individual and the social which makes use of a distinctive range of concepts such as structure, process, culture, norms, values and so on."* (p.12).

In the field of occupational choice it is impossible to a large extent, to set distinct boundaries between the two disciplines. Crites (1969) accepts that, from the sociological perspective, the major factor in the determination of an individual's occupational choice is the impact of the culture and society, in which he lives, upon the goals and objectives he learns to value. Sofer (1974) says that sociologists realize that personal preference is only one of several variables affecting the way a person opts when faced with concrete alternatives, and that choices are not necessarily systematic but the result of external social influences and institutions which canalize people toward different occupational streams. According to Speakman (1976) sociologists tend to be interested in how types of people tend to enter certain types of work, whereas psychologists are interested in how an individual comes to enter one from amongst the range of jobs available.

There are certain theories and certain proposed models of behaviour where the two disciplines converge, and an attempt at a synthesis of the two disciplines, as concerns occupational choice, will be made in a later chapter in this thesis. At this point though, it can be said that sociological approaches to the process of occupational choice have failed to a certain extent to give comprehensive and testable theories but, on the other hand, they have managed to examine the subject from a more realistic point of view emphasizing the numerous social variables that are involved in the process, and more particularly the undeniable fact that for most people "choice" to the extent that it exists, is of restricted range, losing

thus the core of its meaning (Speakman, 1976). Besides, the central issue for most sociologists is not how the individual chooses his job but how social processes, like the transition from school to work, take place in a social system, or how the youth labour market is structured, or even how social reproduction and recruitment come to be realized.

b. An Attempt at Classification.

A considerable amount of sociological research and speculation has been dedicated to occupational choice. Most of the material though, is concerned with isolated social parameters and factors that bear on choice. Thus, not many integrated theories have been put forward and the existing ones are rather segmented.

There does not seem to exist a taxonomy of sociological theories on occupational choice, and this could be due to the fact that, as was pointed out above, no comprehensive, integrated theories have been presented. Some of the models presented are the theoretical end-products of empirical research with small or specific samples and limited scope. Besides, some of the basic variables (e.g. values, aspirations, structural or situational constraints) have been examined in isolation. Moreover, it is not always clear whether existing research is sociological or psychological, as both disciplines use similar concepts. The journals where such work is published could be an indication, but not always a safe one. Certain concepts like socialization, personal values, social structure, social class, in conjunction with the whole theoretical approach, could be

taken to denote a sociological orientation.

An attempt at classification follows: Theories and models, or simply theoretical speculations, have been classified here in three categories: a) Process or Socialization Models, those that examine choice in a longitudinal perspective. In this respect, they resemble psychological developmental theories. b) Structure Models and Theories: those concerned with structural influences and limitations on choice. c) Value-Attainment Models: those concerned with goal-, and value- attainment behaviour, within a sociological framework. These latter models are to a large extent similar to psychological decision-making theories but they differ in that they deal with the determinants of choice from a different point of view, the individual's value system. They are not concerned with the development of the value system and in this they differ from the Process-Socialization models.

3.10 Process - Socialization Models

A sociologist, Peter Blau, two psychologists, J.W.Gustad, and R.Jessor, and two economists, H.S.Parnes and R.Willock, presented an interdisciplinary approach to occupational choice, which was not intended to be a theory but a systematic pattern for empirical research (Blau et al., 1956).

At the outset, they point out how intra - disciplinary approaches tend to ignore important variables operating in the process of occupational choice and development. Then they attempt to combine some of the main concepts of the three

disciplines into their conceptual framework. Two interrelated sets of factors motivate choice: the individual's valuation of the rewards offered by the different alternatives and his appraisal of his chances of being able to attain each of the alternatives.

Valuations and appraisals are assumed to be acquired and modified through social experience and they constitute a hierarchy of preferences (valuations) and a hierarchy of expectancies (appraisals). The chosen course of action reflects a compromise between the individual's preferences and expectations: *"Thus, his actual choice will probably be not identical with his first preference if his expectation of reaching the preferred goal is very low"* (Blau et al., 1956).

Occupational choice, according to Blau et al., is limited by variations in knowledge about existing opportunities, variations in rationality and in the discrimination between alternatives. It is a process involving a series of decisions, each of which is governed by the way in which the individual compromises his ideal preference and his actual expectations of being able to enter a given occupation.

The process, though, is not unilateral, because the individual is also selected (occupational selection) in the same way in which he is choosing. *"The decision concerning each candidate is guided by the employer's ideal standards and by his estimate of the chances that a better qualified candidate than the one under consideration will present himself in the future"*.



Thus, on the individual's side three elements are operating at the point of choice: preference, expectancy, hierarchy, while two more elements are operating on the occupational selection side: ideal standards and realistic estimates. The immediate determinants of either side (also influencing the other side) are: a) For the choosing individual: occupational information, technical qualifications, social role characteristics, reward value hierarchy. b) For the selecting agents: formal opportunities (demand), functional requirements (technical qualifications needed), nonfunctional requirements (criteria affecting selection not relevant to actual performance i.e. veteran status, looks etc.), amount and types of reward.

Blau and his colleagues attempted to give a historical dimension to their conceptual framework, thus the determinants of choice, in the pre-choice period are: a) For the choosing individual: 1) Sociopsychological attributes; 2) Personality development. b) For the selecting agents: 1) Socio - economic organization; 2) Historical change.

Both continua, the one of the choosing individual and the other of the selecting agents, originate from the social structure which consists of the social stratification system, cultural values and norms, demographic characteristics, type of economy, and technology.

In sum, Blau and his colleagues view occupational choice and entry as a result of two different processes operating at the same time: the development form of the socioeconomic system and

the development of the individual. Since the starting points of both processes lie in the social structure, and since most of the key - points in the individual's continuum are of a sociological nature, it is obvious that the proposed framework is basically sociological.

Blau's conceptual framework has influenced occupational choice research to a considerable extent, as it was the first call for attention to factors and agents that lie outside the individual. In addition, it was the first theory that drew attention to the important role of social structure and social stratification. It seems though, that it has never been empirically tested as a whole and this could be due to its all-encompassing nature and its historical perspective, which does not render it readily testable.

Musgrave (1967) attempted to formulate a sociological theory of occupational choice based on socialization and role theory. He introduced the term "economic socialization" to cover the cluster of roles that relate to the economic institutions of any culture. Economic socialization is subdivided into the learning of consumer and producer roles. Musgrave considers producer roles more pertinent to occupational choice, since they are connected with problems such as: how and when the stereotypes of different occupations are learned, how occupations are discriminated as relevant or irrelevant to the individual, and how values and attitudes needed in various work settings are acquired.

Occupational choice is located sociologically "in that part

of secondary socialisation that deals with producer roles, though primary, tertiary and other types of secondary socialisation may have latent relevance" (Musgrave, 1967 in Williams, 1974, p. 100). Musgrave proposes four stages within which the process of economic socialization takes place: 1) Pre-work socialization; 2) Entry to the labour force; 3) Socialization into the labour force; and 4) Job changes.

A key concept in understanding the process of moving through the various positions involved in the four stages is "anticipatory socialization": "Much anticipatory socialisation occurs in the family. Thus, an important part of socialisation at the pre-work stage is the move from viewing one's future occupation in a spirit of fantasy and idealism to taking a realistic view of one's potentialities. The individual in anticipation practises taking the values and behaviours prescribed for an occupational role in which he sees himself." (Musgrave, 1967, in Williams, 1974 p. 101)

During the first stage of pre-work socialization there occurs the relevant primary socialization that will be latent to subsequent secondary and tertiary socialization. During this stage the range of choice is narrowed by the three agents of socialization, the family, the school and the peer group. The child, gradually, either realizes what possible roles are available to him or, restricted by the socialization process, adopts a self-concept that narrows the range of roles from which he will choose.

In the second stage, entry to labour force, preference must

become choice, although this process may have been rehearsed by anticipatory socialization. Choice must match the selection process of industry and commerce and thus it is constrained by local opportunities. The third and fourth stages refer to the socialization of people already in work.

Musgrave's model has been strongly criticized by Coulson, Keil, Ridell, and Struthers (Coulson et al, 1967) for being an oversimplified functionalist theory resting on a consensus model of society, for lack of clearly defined terminology, imprecise use of concepts, particularly those of "role" and "socialization".

Although we do not agree with the prescriptive nature of the model concerning the learning of producer roles, which are assumed to be connected with occupational choice, (one could argue that consumer roles are nowadays equally, if not more pertinent to it), we must credit the theory with allowing for the influence of the opportunity structure and for subsequent developments in the choice process, after job entry. In addition, the special emphasis given to the influence of the family, the school, and the peer group makes Musgrave's theory more pertinent to the actual process taking place within certain cultures, where the kinship and family bonds are still strong.

3.11 Structure Models

Sociological approaches that focus on the long-term processes that formulate an individual's occupational choice, taking into account mainly social - psychological factors and elements, have been classified by some writers as "the individual - ambition model" (Speakman, 1976). Theories which concentrate on the social and economic structures which canalize young people into certain kinds of work, allowing only limited scope for choice have been labelled the "opportunity - structure model". It has been suggested that the two models may not really be alternatives but the representations of the choice factor operating for different social groups (Speakman, 1976)

The main British proponent of the opportunity structure model has been Kenneth Roberts (1968; 1971; 1975; 1981). Roberts (1968) conducted a study which was designed to test the developmental theories of Super and Ginzberg. He formulated three hypotheses: a) Young workers' ambitions will gradually become more consistent with their jobs as their careers develop; b) Job satisfaction will gradually increase as careers develop; c) Occupational mobility will decline in frequency as careers progress.

None of the three hypotheses were adequately confirmed and although he did not deny that developmental theories could predict the careers, job attitudes and ambitions of some young people, he concluded that "these theories cannot be accepted as satisfactory accounts of the processes that are involved in the entry into employment" (1968, p. 146). He contended that

amongst British school leavers, at least, occupational choice is frequently not the determinant of career behaviour. He presented three types of evidence:

a) Most of the occupational mobility that takes place amongst the adolescent labour force is not anticipated in their ambitions;

b) Despite the fact that many school leavers fail to enter their chosen jobs, few are dissatisfied with the employment they do obtain;

c) Young people rarely entertain ambitions for jobs falling beyond their educational attainments.

He concluded that to a large extent young people's ambitions are based upon the occupations that they expect to enter and that ambitions adjust to occupational changes, rather than changes being planned in order to realize developed ambitions. He thus proposed an alternative theory of occupational choice, the main proposition of which is that the employments school leavers enter and the patterns into which their later careers develop depend more upon opportunity than choice. The distribution of opportunities is a function of the manner in which the occupational system, education and the family interlock, and within this nexus scope for choice is rarely significant, and often non-existent. As he puts it: "Opportunities are cast by the occupational structure and employers' recruitment practices, and these respond no more than marginally to individuals' aspirations. Not only is the total range of

opportunities determined independently of individuals' choices, but access to different levels of employment depends upon educational attainments, and to lesser extents, family and particularistic contacts" (1981, p.284).

Roberts presents a framework for the conceptual understanding of job entry, concentrating on the limited range of choice alternatives. As choices do exist, even to a limited degree, the main point is to determine: a) The social factors influencing and determining choices, and b) The reasons why so many people acquiesce in ill-rewarded jobs.

He suggests that answers to these can be sought in the influences of the family, of the school, in employment strategies and in the present system of transition from education to work. This kind of analysis, according to Roberts, is complementary rather than opposed to psychological theories. The opportunity structure theory is in the lines of sociological tradition: *"Rather than choice, sociologists employ the language of selection, allocation and placement" (1981, p. 289).*

Roberts has been heavily criticized by Peter Daws, mainly on conceptual grounds: Such a social-structural theory should, by definition, avoid concepts such as choice, thus it should not have reached any conclusions about the role of choice in determining the occupational experience of school leavers. As Daws puts it: *"To summarise, two fallacies are committed by Roberts in his hasty inference from a sociological framework of reference to a psychological one. One is that of supposing that*

if one does not find what one did not look for with instruments that could not in any case have detected it, then it doesn't exist. The second fallacy is that of inferring from the general to the particular. Considerable individual variability eludes, as it necessarily must, the coarse mesh of macro-theorising" (Daws, 1981, p. 252).

Roberts' formulations have become the most frequently cited counter - arguments to developmental conceptions of occupational choice. The fact that the theory has been accepted as a point of discussion is not irrelevant to present - day economic developments. Individual-ambition models flourished in the postwar era of economic boom and rapid development. Upward social mobility was quite common in all industrial societies (Heath, 1981).

Present - day economic recession, though, has also brought us to the realization that not all occupational goals can be attained, even if necessary qualifications and requirements are met. Thus one can assume that aspirations have to adjust to existing opportunity structures. This is the reason why interest in the influence of structural factors on choice has initiated new research with new hypotheses that are being tested (e.g. Collin, 1983). This trend has started appearing in the USA as well, where the individual - ambition approach had always flourished.

Similar to Roberts' views, but with emphasis on a totally different set of contingencies and situational factors is the suggestion made by Fred Katz and Harry Martin (1963), as a

conclusion of their study of student nurses. The view which they adopt is that *"the process of entry into an occupation may be looked upon as the cumulative product of a series of specific acts, which may or may not be directly focused upon a deliberate career choice"* (p.149).

The decisions which underlie embarkation on a career, for at least some persons, revolve around limited situational contingencies. This kind of career process does not involve subjective career - orientation decisions, and embarkation on a course of action may be the result of a series of steps which, individually are not teleologically oriented to that course of action. Thus, one may choose to embark on a course of study in order to remain close to a friend, or to find suitable company, and so on.

Katz and Martin's views challenge individual - ambition models in that they accept that for some people occupational choice is subordinate to other needs and orientations. It can be a means to the attainment of other ends and thus it is not always a central issue, in itself, in some people's lives.

3.12 Value - Attainment Models.

Value - attainment models examine occupational choice rather ahistorically, as a value - attainment process. Their sociological element lies in that they consider that socialization, class, and value differences are reflected in goal - seeking behaviour. This behaviour though, originates in the individual's value system.

Basil Sherlock and Alan Cohen (1966) distinguish two opposing approaches to occupational choice. The first conceives of choice as essentially adventitious in nature, nonrational, spontaneous and based upon situational pressures. The second approach is considered to be stressing the purposive nature of occupational choice.

Sherlock and Cohen do not reject either approach but they consider that each one is more suitable for the description of recruitment to different kinds of occupations. Thus, the adventitious approach perhaps describes recruitment to unskilled or semiskilled occupations. The purposive approach seems to fit the case of skilled occupations, including professions.

In their research on recruitment into dentistry, they hypothesized that *"choice of dentistry is an outcome of two strategies; a status-seeking strategy and a minimax strategy which balances access against reward preference"* (p. 305). By "minimax" they mean a combination of high rewards (those of dentistry in this case) with an easier access (as opposed to medicine, in the case of their sample). Their data also indicated a relation between career perspectives and status and status mobility of the respondents' fathers.

In sum, this study, although restricted to a uniform sample, students enrolled in a pre dental curriculum, gave support for some conclusions: a) Career choice can be described as a rational compromise between desired rewards and the realities of access; b) Reward and access seem in turn to be influenced by

the occupational history of the individual's family, particularly status and status mobility of the father; c) A minimax strategy can be employed, regarding the interaction of reward and access: a combination of high rewards with easier access.

Julienne Ford and Steven Box (1967), on the other hand do not accept that there is an adventitious nature in occupational choice, at least to an extent that it can be nomothetically generalized. They conclude the introduction to their theory thus: *"In sum, apart from those studies which are idiographic in implication on the one hand, and those, on the other hand, which are concerned with the correlates of differential socialisation into occupational orientations, most sociological discussions of occupational choice have converged. There is now general agreement that this phenomenon is to be viewed as a rational process by which certain desired ends are weighed against the perceived probability of their attainment."* (p. 112, in Williams, 1974).

Their theory comprises two propositions:

1. In choosing between alternative occupations, a person will rank the occupations in terms of the relation between his values and the perceived characteristics of the occupation; the higher the coincidence between the characteristics and his values the higher the rank.
2. The higher a person perceives the probability that he will obtain employment in the higher-ranked occupation, the more likely he is to choose that occupation.

Philips (1964) on whom Ford and Box have drawn, views occupational choice as the result of the minimization of expected value deprivation. His central hypothesis is that "preference for a given occupation varies inversely with the gap between occupational goals and expectations for fulfilling them in the given occupation. Stated differently, a given occupation is preferred to the degree to which this gap (expected value deprivation) is minimized." (p. 151).

In his study, Philips too, dealt with secondary occupational choice, since his subjects were medical students choosing medical fields. He employed ten occupational values which were considered to be related with different fields of medicine. Student expectations for fulfilling each of the ten occupational values were obtained for each of six fields of medicine: general practice, internal medicine, surgery, psychiatry, pathology and public health.

Preferences among fields were also obtained by the ranking of the six fields. Expected value deprivation (EVD) scores were obtained for each respondent using the following formula:

$$EVD = \sum_{R, O_k}^{10} (V_i - E_i)$$

i.e. EVD for respondent R , with reference to occupation (O_k) is measured by summation of the difference between value scores (V_i) and expectations for fulfilling the corresponding values (E_i) over the set of ten values. Only positive difference scores enter into the summation. The six EVD scores were turned

to ranks.

Philips' statistical analysis of the results was mainly based on a measurement of agreement, using percentages between EVD rankings and "favourable ratings" of the six fields in terms of values. He did not make any effort for deeper insight into his data and more sophisticated analysis. Besides, his results were rather indicative, toward the expected direction, of the relation between values and occupational fields but not statistically irrefutable. This was due to some inherent inadequacies in his research design, to which he also draws attention. Nevertheless, it was one of the first attempts at obtaining subjective evaluations of expected outcomes and connecting value attainment with occupational choice.

Norman Blaikie (1971) attempted to develop and test a theoretical model of occupational choice which would be compatible with the work of Philips, and Ford and Box, but with specific emphasis on the origin of values, changes in values and the relationship between value changes and changes in occupational choice.

The main propositions of his theoretical model are:

1. Individuals have goals and seek means to realize them; action is goal oriented.

2. The values, which an individual holds, determine the relative importance given to these goals; individuals give highest priority to those goals which accord with the values they hold.

3.Values are internalized, initially, during primary socialization as part of the individual's symbolic universe, and are subsequently either modified by processes of secondary socialization or largely replaced by resocialization.

4.Individuals choose an occupation in which they perceive they can realize the occupational goals to which they give the highest priority.

5.When individuals perceive restrictions related to their possible employment in occupations which are seen to accord best with their high priority occupational goals, they will choose an occupation which they perceive will be least likely to hinder the realization of their high priority occupational goals; they will minimize value deprivation (Blaikie, 1971, p. 315)

One distinct merit in the work of Ford and Box, Philips, and Blaikie is that they concentrated on values and perceptions of value attainment through the choice of a career. As we shall try to establish in the rest of this thesis, values should be of central concern in career related research.

Sociological theories of value attainment can offer good insight into the occupational choice process, because they can accommodate both structural elements, as perceived by the choosing individual, and the effects of differential socialization and class membership on the individual or on social groups. All these are reflected in the evaluations and the goal-seeking behaviour of the people or groups making occupational decisions.

PART II: THEORETICAL FOUNDATIONS OF THIS RESEARCH. THE MEASURING INSTRUMENTS.

1. Synthesis

In the preceding chapters we examined most psychological and sociological approaches to occupational choice. One could distinguish three main theoretical directions: a developmental direction, one that views occupational choice in a longitudinal perspective, a matching direction, one that views choice as a matter of bringing together individual characteristics (e.g. self concepts, personality traits, abilities aptitudes etc.) with relevant work environment characteristics, and finally a social and economic structure direction, one that tends to negate, to a large extent, the existence of choice, as it is assumed that occupational choice is directed, and partly determined, by social and economic parameters. In this sense, entry to work is viewed as the result of manpower planning and recruitment policies on the part of society. Such factors have tended to be somewhat overlooked in occupational choice theory in the past, and in most industrial societies the individual - ambition models of recruitment have prevailed in careers guidance theory and practice.

An important shift of focus has recently taken place, in occupational psychology and sociology. New questions are being asked and traditional views are being challenged. This comes as a result of major developments taking place in industrial societies. It has become apparent that free choice is not always feasible, as employment in some jobs is difficult, and unemploy-

ment among some formerly privileged segments of the work force is becoming frequent. People compromise for jobs for which they are overqualified or settle down with jobs which bear no relation to their training or qualifications and, presumably, to their initial choices.

In addition, the importance of work in people's lives seems to be questionable. Super epitomises the new questions raised thus: *"There has been an important recent shift in the kinds of questions being asked. Instead of asking: 'What is it that people want to get from working?', still recognised as an important question, technological change and cultural diversity are causing both behavioral scientists and policy makers to ask: 'Do people want to work? How strong is their motivation to do so? What and how strong are their alternative objectives?' The old question is one of needs, values, and interests; the new are questions of the importance of work and of other life roles as ways of meeting needs in contemporary society."* (Super, 1979: Research Project Proposal to the Work Importance Study).

Many social scientists have also pointed to the growth of leisure as a feature of contemporary industrial society and have challenged the view that work continues to be a central issue in most people's lives. They suggest that attention should be paid to the meanings which work has for the individual, both in terms of the rewards sought from work and of the relative importance assigned to work, as opposed to other activities (Kidd and Knasel, 1980; Knasel, Super, and Kidd, 1981).

Kidd and Knasel (1980) think of these problems, as problems

of "work values" and "work salience". These two concepts embrace all aspects of work behaviour: choice, entry, performance, satisfaction. In addition, the "motivations to work" (cf. Hirszowicz, 1981, pp. 71-97) seem to be the issue that has attracted most attention in both theory and research connected with most aspects of work behaviour, including occupational choice.

These three concepts (values, salience, and motivation) were selected as the theoretical foundation of the research reported in this thesis. The research was conducted in Athens, Greece, in the period October 1980 - February 1981 with subjects drawn from male pupils attending the final year of secondary education. The subjects came from two different school environments, and three different school curricula. In the following chapters we shall give the reasons why we considered such an approach more fruitful and we shall try to elaborate on the relevance of these three concepts - work salience, work values, and work motivation - to the occupational choice process. In addition, we shall try to explain how we tried to combine them in order to understand better how social and societal elements bear on young people's occupational decisions, and in order to gain more insight into how economic and situational factors reflect on individual choice behaviour.

2. Work Salience

The term "work salience" has been used as equivalent to "the importance of work" (Kidd and Knasel, 1980; Greenhaus, 1971; 1973) to replace the latter term or similar constructs: "job

involvement" (Lodahl and Kejner, 1965); "work as a central life interest" (Dubin, 1956); "career commitment" (Richardson, 1974); "protestant ethic" (Wollack et al., 1971).

The first to pose the question of the centrality of work in man's life was Marx (1844): *"What constitutes the alienation of labour? First that the work is external to the worker, that it is not part of his nature; and that, consequently, he does not fulfil himself in his work but denies himself, has a feeling of misery rather than of well-being, does not develop freely his mental and physical energies but is physically exhausted and mentally debased. The worker therefore feels himself at home only during his leisure time, whereas at work he feels homeless. His work is not voluntary but imposed, forced labour. It is not the satisfaction of a need, but only a means for satisfying other needs. Its alien character is clearly shown by the fact that as soon as there is no physical or other compulsion it is avoided like the plague".* (K.Marx, *Economic and Philosophical Manuscripts*, in K. Thompson, J. Tunstall (Eds.): *Sociological Perspectives*, p. 55 Penguin: 1971).

Marx makes two assumptions about job behaviour: It can either be a) an instrumental activity that satisfies basic needs, a means to an end, or b) a consummatory activity, an end in itself (Kanungo, 1979).

Another early sociologist who dealt with the meaning of work was Durkheim (1893), who developed the concept of *anomie*, which implies a disorganization of social norms, a state of purposelessness, a result of the lack of what he calls "organic

solidarity", and which, in the case of work can result into a state of alienation. Max Weber (1905; Gerth and Mills, 1948) argued that dedication and commitment to work, which promoted capitalism, resulted from the Protestant Ethic, the spirit of self - discipline and asceticism, which encouraged people to view work as a secular task, a "calling" that would lead to salvation, if performed properly and successfully.

Dubin (1956), following the theoretical trend of Marx, Weber, and Durkheim, examined the extent to which work was a "central life interest" of industrial workers. He pointed out that previous researchers had assumed that work must be a central life interest, because so many people were engaged in it, whereas he assumed that holding a job was simply evidence of adequate performance above some minimal level that justified continued employment by the company. His hypothesis was stated as follows: *"A significant proportion of industrial workers will be classified as non-job-oriented when central life interest is measured."* His research showed that only one in four industrial workers could be classified as job-oriented: *"thus, three out of four of this group of industrial workers did not see their jobs and work-places as central life interests for themselves. They found their preferred human associations and preferred areas of behavior outside of employment."* (p.135).

He concluded that industrial man seemed *"to perceive his life history as having its center outside of work for his intimate human relationships and for his feelings of enjoyment, happiness and worth"* (p.140). Life interests for the industrial worker have moved into the community.

Lodahl and Kejner (1965) distinguished two tendencies in the examination of job involvement: one adopted mainly by psychologists who focus on organizational conditions that lead to job involvement (e.g. meaningfulness of work, adequacy of supervision etc.), and a second one adopted by sociologists who focus on the aspects of the socialization process that lead to the incorporation in the person of work relevant norms and values.

Rabinowitz and Hall (1977), after an extensive review of the literature, point out that job involvement and other similar terms (e.g. central life interests, work role involvement, intrinsic motivation etc.) seem to describe two different concepts: a) performance - self esteem contingency, and b) component of self-image. They also identify three distinct directions in the empirical investigation of job involvement: a) as an individual difference variable; b) as a situationally determined variable, and c) as a person - situation interaction variable.

As the shift to the investigation of work salience is relatively recent, one should expect a relevant shift in occupational choice research. It seems that, though scarce, there have been some studies of this sort. Masih (1962), employing Kuhlén and Dipboye's (1959) concept of career saliency, examined its relation to needs, interests, and job values. Career saliency was defined as: a) The degree to which a person is career motivated; b) The degree to which an occupation is important as a source of satisfaction, and c) The degree of priority ascribed

to occupation among the sources of satisfaction. Subjects were categorized as a) low career salient, b) medium career salient, and c) high career salient, on the basis of an interview. Two career saliency patterns were identified, one for men and one for women. The main findings of this study were : a) In the high salient group, men showed lower interest in the opposite sex, higher need to endure long periods of work, interest in higher level occupations, greater concern for prestige, low desire to look for jobs. Women showed high need for achievement and endurance, strong desire for fame but less concern for prestige. b) In the medium salient group, men showed interest in the opposite sex and desire to endure long periods of work but not great interest in prestige, higher - level or steady occupation. Women tended to care very little for achievement but were prepared to endure long periods of work. They were not concerned with fame but were highly conscious of prestige. c) In the low salient group, men presented a high interest in heterosexual relationships and a low desire to endure long periods of work, a high interest for prestige, fame and steady work. Women seemed to care very little about achievement, endurance, prestige, and fame.

Greenhaus (1971, 1973) connected his study on career salience, defined as the importance of work and a career in one's total life, with Super's self-concept theory, assuming that self - occupational congruence would be more characteristic of high career salient persons. He used the Career Salience Questionnaire consisting of 28 items. He found a positive relationship ($r=.27$ $p<01$) between career salience and congruence for males but not for females. There was also a positive

relationship between career salience and the choice of an "ideal" occupation for both sexes. A factorial analysis of the career salience items identified three factors (Greenhaus, 1973): 1. Relative priority of a career compared to specific sources of life satisfaction (e.g. family, friends, leisure). 2. General attitudes toward work, i.e. viewing work with positive affect and anticipation, and 3. Concern with career advancement and planning for a career.

In a later paper, Greenhaus (1974) reported findings that supported a positive relationship between one aspect of career salience (career advancement and planning) and occupational preference, and satisfaction with life in general.

Super (1978) defined salience as the importance or prominence, as shown by attitudes, knowledge, or behaviour. He considered that the major subsets of terms included in the term were involvement, engagement, commitment, participation and orientation (Knasel, Super, and Kidd, 1981)

In sum, it seems that an imperative prerequisite of any career-related research should be the examination of the relative importance of work in the particular sample that is being examined. With reference to occupational choice, in particular, more attention should be paid to those groups of young people who view the prospect of getting a job as an unimportant routine task in their lives. For this to be attained, work salience research should be extended to young people who have not yet entered employment. An effort should be made to investigate the importance of work among young people

and to identify those young people who do not foresee any intrinsic satisfaction in getting a job or who view work as something undesirable but compulsory in present society. In this sense, a firm distinction should be made between work, an end in itself, and employment, that is the instrumental attitude to work, where work is viewed, and sought as a means to other ends.

It is our belief that such attitudes are not yet common but are increasing in number within some groups of young people, and we should think that such groups are not always similar to the "disaffected lads" described by Willis (1977). The uncertainty of job entry, the welfare state, the multiplicity of messages and stimuli in western societies may have contributed in shaping some new attitudes in some groups of young people concerning the importance or necessity of work. On the other hand, it could be argued, from a marxist point of view, that work lost any intrinsic value from the moment that workers were alienated from their products.

Whatever the case may be, such attitudes should be further investigated, in order to identify the social and economic parameters that help in shaping them, and the social groups that espouse them or reject them.

3. Values

The second concept on which this research concentrated was the concept of values. Reference to values is abundant in both sociological and psychological theory connected with occupational choice, but perhaps because of the inevitable lack of specificity inherent in such a key aspect of human behaviour, and because of the difficulty of operationalizing and measuring such a broad concept, no integrated value - centred theory has been presented with regard to occupational choice.

The basic hypothesis of this research was that occupational choice is a value attainment process, in other words, an effort on the part of the person to realize, through work, some of his/her most valued goals. Of course, such an approach does not disregard the reality factors that stem from the social structure or the employment policies, but to the extent that free choice is feasible, this approach could offer a plausible explanation why certain job alternatives, within the same occupational level and the same occupational field, are considered, while others are ruled out.

We shall examine here the general concept of values first, and then we shall concentrate on the more specific concept of work values. Next we shall present the instruments used in this research for the measurement of values.

Values, as a concept, seem to pervade all the social sciences. Parsons (1968) suggests that values are "*patterns at the cultural level which can, by institutionalization, become*

determinants - of course, never alone - of empirical social process", and he considers "value commitments" one of the four generalized symbolic media of interchange that operate within societal systems, as conceived in his theory of social action (the other three being money, political power, and influence).

Tyler (1978) presents the view that, of all the structures, through which human possibilities are selected and actualized in individuals, value systems are the most comprehensive and probably the least understood. Rokeach (1973) believes that the value concept, more than any other concept, is an intervening variable that shows promise of being able to unify the diverse interests of all sciences concerned with human behaviour. The importance of values in the behavioural sciences is also stressed by Feather (1975; 1982a; 1982b), whose work bears a more direct relevance to our topic.

There have been different definitions of values. One of the earliest was presented by the anthropologist C. Kluckhohn (1951) who defined values as conceptions of the desirable, which influence the selection from available modes, means and ends of action. This definition was also adopted by Parsons (1968). The philosopher C. Morris (1956 - in Tyler, 1978) did not present a definition but he distinguished three ways in which the term is usually employed: as a tendency to prefer one thing to another; as an anticipation of the outcome of preferential behaviour; and as a concept about what is desirable, whether or not it is in fact preferred. Another definition is presented by Brewster Smith (1963) who considers values "*conceptions of the desirable that are relevant to selective behavior*".

Rokeach (1973) has presented a thorough conceptual and empirical investigation of values. According to Rokeach: "A value is an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end - state of existence. A value system is an enduring organization of beliefs concerning preferable modes of conduct or end - states of existence along a continuum of relative importance" (p.5).

Rokeach explains his conceptualization further: A value is enduring and not stable or unstable, because if it were completely stable there would be no social or individual change. If, on the other hand values were completely unstable, continuity of human personality and society would be impossible. The enduring quality of values arises from the fact that they are initially taught and learned in an absolute, all - or - none manner.

A value is a belief of the "prescriptive or proscriptive type", i.e. one which some means or end of action is judged to be desirable or undesirable. As all beliefs, values have cognitive, affective and behavioural components: they are cognitions about the desirable, they imply affect for or against something, they are intervening variables that lead to action (Rokeach, 1973).

By the term "mode of conduct" and "end-state of existence", Rokeach refers to the distinction between means- and ends-values made by previous theorists. In this respect he distingui-

shes two kinds of values: instrumental and terminal values, which are further distinguished into personal and social values (the terminal ones) and moral and competence values (the instrumental ones).

Finally, Rokeach deals with the meaning of preference which also appears in his definition, because this has always introduced an ambiguity into attempts at definition, in particular: a) Whether it is assumed that worth resides in the stimulus object or the stimulus object's worth is a function of human perception (Cooper and McGaugh, 1966) or b) Whether there is a distinction between the "desirable" and the "desired", the "preferable" and the "preferred" (Smith, 1963; Lorr et al., 1973). Rokeach believes that values represent preferences in two ways: a) a preference for one end-state over an opposite end-state, and b) preference for a particular mode or end-state, not only when it is compared to its opposite but also when compared with other values within the individual's value system.

The difference between values and attitudes, according to Rokeach, is that attitudes represent an organization of several beliefs around a specific object or situation whereas values refer to single beliefs of a very specific kind. He also distinguishes values from needs, mainly on the grounds that needs have always been the centre of attention in animal observation, and never values: "Values are the cognitive representations of needs, and man is the only animal capable of such representations and transformations." (p.20). Values are also viewed as the cognitive representations not only of individual needs but also of societal and institutional demands,

of sociological and psychological forces acting on the individual. Locke (1976) also, distinguishes between needs and values:

"While needs are "objective" in that they exist regardless of what the person wants, values are "subjective" in the sense that they are "in consciousness". While needs are innate (inborn), values are acquired (learned). Thus, while all men have the same basic needs, men can (and do) differ in what they value. While his needs confront man with the requirement of action, his values determine his actual choices and emotional reactions."(p.1304).

Another distinction is between values and interests. Rokeach criticizes Allport, Vernon, and Lindzey's (1960) Study of Values that it fails to distinguish between the two concepts, a criticism in accordance with similar ones by Smith (1963), and Lorr et al.(1973). An interest according to Rokeach, is one of the many manifestations of a value, having some common attributes with the value, but, in general, being a narrower concept. It cannot be classified as an idealized mode of behaviour or end-state of existence.

Culture, society and personality are considered by Rokeach the major antecedents of values, while attitudes and behaviour are their major consequents. Thus, values can be (and have been) treated both as independent and dependent variables, depending on the approach and the discipline in which one is moving:

"Virtually every comparison we have undertaken between groups differing in cultural, demographic, social class, or personality variables has uncovered distinctive value

patterns. Similarly, distinctive value patterns have been found to underlie differences in virtually every attitudinal, behavioral, life style, interest, and occupational variable. Thus, values seem to be implicated either as dependent or independent variables at virtually all levels of social analysis - cultural, institutional, group, and individual. It is tempting to suggest, even at the risk of oversimplification, that the the fields of anthropology and sociology are more concerned with values as dependent variables, and psychology is more concerned with values as independent variables."(p.326).

Most sociological work examining values has been concerned with differences in values and value orientations between different social classes. Centers (1949) suggests that a person's status and role with respect to the economic processes of society, impose upon him certain attitudes and values, as well as a consciousness of membership in some social class which shares those attitudes and values. The most interesting differences between social classes appear in the domain of values and wishes. Similar views are presented by H.Hyman (1954); F.R. Kluckhohn and F.L. Strodbeck (1961).

Thus, Kohn and Schooler (1969) report findings that suggest that people of higher social class position seem to value self-direction, whereas those of lower class position value conformity. Not all sociologists, however, agree that there are distinctly different value patterns for different social classes. Two interesting interpretations for social class differences in values have been presented by Rodman (1963) and

Turner (1964). Rodman speaks of a "value stretch" on the part of the lower classes who share the general values of society but in addition they have stretched these values, or have developed alternative ones, so that they can adjust to their deprived circumstances. Turner introduces the concept of "value-relevancy" or "value compartmentalization" i.e. values are accepted by different classes in abstract situations but they are translated into class-relevant goals and modes of behaviour (Han, 1969; Banks, 1976; McKinney, 1975).

In view of all these theoretical speculations about values being a useful instrument for the explanation of different aspects of social behaviour, we shall concentrate our attention on existing empirical evidence concerning the relevance of values to different aspects of the occupational choice process and their relationship with variables directly connected with this process. Next, we shall present the instruments used for the measurement of values in this research, and how values were combined with a motivational model in the effort: a) to examine occupational choice as a value attainment process, and b) to bring together some aspects of psychological and sociological theory.

3.1 Values and Occupational Choice

A choice situation is partly determined by the prior beliefs and values of the actor (Williams, 1971), and occupational choice has often been examined in this context.

Ginzberg (1951) was the first to point out that an effective

occupational choice can only be supported by the individual's value system. The first extensive study of the relationship between values and occupational choice was conducted by Rosenberg (1957). Rosenberg suggests that when an individual makes a selection from a given number of alternatives, it is likely that some value is behind the decision, and in the case of occupational choice "to ask what an individual wants out of his work is to a large extent to ask what he wants out of life."

The same line of thought appears in Katz's (1963) conceptualization of the career decision-making process. He suggests that this process is: 1) prompted by the cultural (educational-occupational) system which, requiring a decision, creates a disequilibrium between the individual's present state of knowledge and the one necessary for decision-making; 2) mediated by symbols that permit the individual to translate his evaluations of past events into expectations for the future; 3) shaped by differentiated characteristics of individuals; and 4) resolved when a new equilibrium has been established. And Katz concludes that such a model suggests an interplay of social and psychological forces but does not portray the dynamics of interaction. And he concludes that if there is a single synthesizing element that orders, arranges, and unifies such interactions, that ties together an individual's perceptions of cultural promptings, motivating needs, mediating symbols, differentiating characteristics, and sense of resolution, that relates perceptions to self-concepts, and that accounts most directly for a particular decision or for a mode of choosing, that element, he suggests, is the individual's

value system.

Schwarzweiler (1961) reports findings that support the general hypotheses that 1) value orientations influence occupational selection, and 2) occupational value orientations are learned in the socialization process. Similar views about the relation of values to occupational choice or to aspects of job behaviour are presented by Miller (1956), Katzell (1964), and Simpson and Simpson (1960).

3.2. Work Values

Most of the studies mentioned above were concerned with different sets of values that were not directly related to an occupational framework; they were of the type to which Rokeach refers as "life values" or most sociologists would describe as "personal values". Soon, however, as the interest in the relationship between values and occupational behaviour was growing, an increasing effort was made to distinguish a separate set of constructs that would refer more directly to occupational behaviour.

Although the concept of "work values" was introduced in occupational research in the 1950s, and has been investigated extensively since then, there has never been a universal agreement as to the exact meaning of the concept. Moreover, the individual items labelled "work" or "occupational" values vary in number among different researchers, starting from as few as five (Hammond, 1954) and extending to as many as twenty three (Daws, 1965). Kidd and Knasel (1980) indicate that the most widely agreed-upon work values for young people are: security, prestige, salary, interpersonal relationships, independence and altruism. In addition, the majority of researchers also include: working conditions, influence/leadership, interesting work and achievement.

Zytowski (1970a) defines work values as "a set of concepts which mediate between the person's affective orientation and classes of external objects offering similar satisfactions" (p.176). Most researchers do not offer a definition, thus, the

meaning they attach to work values varies. Other definitions that appear in the literature are:

"A person's attitudes toward work in general... (and) the meaning that an individual attaches to his work role.." (Hollack et al., 1971, Zedeck et al., 1981).

"The empirically measured tendency to react favorably or unfavorably to certain generalized conceptions about work" (Perrone, 1973, p. 117)

"Values are objectives that one seeks to attain to satisfy a need (...), satisfactions which may be the by-products or the outcomes of work as well as those which men and women seek in their work activity." (Super, 1973 p.p. 190-191)

"...The qualities that workers desire and seek in the activities in which they engage or in the objects that they make or acquire." (Drummond et al., 1977, p. 23).

Pryor (1979) points to the lack of a generally acceptable definition and he attributes this to the insufficient thought that has been given to the nature of the concept, particularly to the relation between the valuer and the valued and to the distinction between the affective and evaluative aspects of values:

"An adequate conceptualization of work values is dependent first on each value statement being considered as an observation of a particular psychological fact, namely the relation between the valuer and the valued. The second requirement is that work values (...) may be categorized according to properties of either the valuer or the valued. Third, work values should be considered exclusively as statements of preferences and not as

moral imperatives. The problem with the label "work value" is that it is misleading because it suggests that evaluative statements (moral imperatives) are being considered rather than affective (preference) statements. This is the direct opposite of the real situation."

(Pryor, 1979, p. 254).

Pryor proposes an alternative term - work aspect preference (WAP) - defined as a statement of the relation between a person (the subject of the relation) and a particular quality of work (the object of the relation). The nature of this relation is that of a greater or lesser liking, when the person has the opportunity to make a choice.

Despite the lack of clarity in the conceptualization and definition of work values, there has been a considerable amount of research in which work values have been employed as a central explanatory concept.

The main work values inventories, according to Zytowski (1970a) are: OARS (Hammond's Occupational Attitude Rating Scales), VVI (Stefflre's Vocational Values Inventory), WVI (Super's Work Values Inventory) and the MIQ (Minnesota Importance Questionnaire). To this list we should add: the OVI (Occupational Values Inventory - Impelliteri and Kapes, 1971), the OWVI (Ohio Work Values Inventory - Hales and Fenner, 1972), the Survey of Work Values - Wollack, Goodale, Wijting, and Smith, 1971). Table 3.1 presents the work values measured by six inventories.

Table. 3.1: VALUES MEASURED BY WORK VALUES INVENTORIES. (Adapted from Kidd and Knasel, 1980).

| | MIQ | WVI | OVI | OWVI | SWV | VVI |
|-----------------------------------|-----|-----|-----|------|-----|-----|
| Security | + | + | + | + | | + |
| Status/Prestige | + | + | + | + | + | + |
| Money | + | + | + | + | + | + |
| Esthetic/Self realization | | + | + | + | | + |
| Achievement | + | + | | | | |
| Advancement | + | | + | | + | |
| Recognition | + | | | | | |
| Working Condi- tions | + | + | | | | |
| Company Policy/ Administration | + | | | | | |
| Co-workers | + | + | | | | |
| Authority/Mana- gement | + | + | | | | + |
| Supervision/Re- lations | + | + | | + | + | |
| Supervision/Te- chnical | + | | | | | |
| Independence | + | + | | + | + | + |
| Social Service | + | + | | + | + | + |
| Creativity | + | + | | + | + | |
| Moral Values | + | | | | | |
| Ability Utili- zation | + | + | + | | | |
| Variety | + | + | | | | |
| Responsibility | + | | | | | |
| Activity | + | | | | | |
| Interest/Satis- faction | | | + | | + | |
| Solitude | | | | + | | |
| Object Orienta- tion | | | | + | | |

MIQ:Weiss et al.(1964),WVI:Super(1969),OVI:Impelliteri(1972)
OWVI:Hales,1972),SWV:Wollack(1971),VVI:Stefflre(1959)

3.3. Previous Research Employing Work Values

Work values have been used extensively in research within the broader field of individual differences. Two main approaches can be distinguished: In the first, values are studied individually, in the attempt to relate difference in magnitude or strength of a particular value to background characteristics such as age, sex, and social class. In the second, individual differences in a set of work values are examined in an effort to establish value profile differences for different individuals (Kidd and Knasel, 1980)

1. Sex differences. Dipboye and Anderson (1959) found a general overall similarity between girls and boys ($r = .83$). The main differences were: girls tended to value more highly prestige, interesting work, working conditions, relations with others, while boys tended to value more highly salary, advancement, and independence. Hales and Fenner (1973), in a study employing the OWVI and 6th grade pupils, found significant differences between males and females on object orientation, altruism, and solitude.

More recent research by Wijting et al. (1977, 1978) in which the Survey of Work Values was employed, showed a decreasing strength in work value differences, so that, by the end of high school, the work-values profiles of boys and girls were characterized by considerable similarity. In general, an extrinsic value orientation was more typical of boys, whereas girls tended to have a more intrinsic value orientation.

2. Age differences. No significant age differences have been

found, at least between different age groups of adolescents (C.H.Miller, 1954; Thompson, 1966; Gribbons and Lohness, 1965), particularly after the 9th grade of high school when, as it seems, the value system has been fairly stabilized (Wijting et al., 1978). This does not seem to be true, if late adolescence is compared to late childhood or early adolescence (5th to 6th grades) (Wijting et al., 1978; Hales and Fenner, 1972).

Two studies, however, reported changes in individual values between the 9th and 10th grades, and the 12th grade, particularly in intensity, (Kapes and Lotowycz, 1972; Kapes and Strickler, 1975). It seems that strong values grow stronger and weak values grow weaker, during late adolescence (Kapes and Strickler, 1975).

When the secondary socialization process in the world of work has started, differences in value profiles seem to become more substantial, as Taylor and Thompson (1976) found in their study of different age groups of workers.

3.Education and work values. It seems that there are no substantial differences in work values between groups differing in academic achievement (Sprinthall, 1966), but Perrone (1965) reports more concern for security in low achieving girls. The type of curriculum attended appears to be a more important correlate of work values (Kapes and Lotowycz, 1972; Kapes and Strickler, 1975; Wijting et al., 1977).

4.Family and work values. The influence of family background in the development of work values was examined by Kinnane and

Pable (1962) and Kinnane and Bannon (1964). In the first study five out of six hypotheses concerning the relationship between work values and family environment were confirmed. Similar results are reported by Paine et al. (1967). In the second study, Kinnane and Bannon found perceived parental influences to be highly related to socio-economic status of the family. Also, there appeared to be a tendency in females to identify with the father, if he was engaged in professional work and had a higher educational level than the mother. In the case of skilled or semi-skilled father, girls tended to identify more with the mother.

Opposite results, however, again with perceived and ascribed value systems, were reported by Wagman (1968), who found distinctive patterned differences between the occupational value structure of sons and daughters and their parents. It seems that at early adolescence children's values are more similar to those of like sexed parents but at later stages both boys' and girls' values are similar to those of their fathers (Wijting et al., 1978; Perrone, 1965).

5. Occupations and values. Relations between occupations and values were first examined by Rosenberg (1957) who found a relationship between value orientations and choice of certain occupations (e.g. people-oriented values were more strongly related with choice of medicine, social work or personnel management as careers).

Similarly, Miller (1956) reports a relationship between high value scores and expressed occupational choice. For example,

high security scores seemed characteristic of the "no-choice" group, those of her sample of pupils who had stated that they had not made an occupational choice, and high social rewards scores of the "definite-choice" group. Observed differences, though, were not so significant, as to allow a definite acceptance of such relationships.

Greenhaus and Simon (1977) examined intrinsic - extrinsic work characteristics and their relationship to career salience and occupational choice. At a medium career salience level, valuing intrinsic work characteristics seems to facilitate making occupational decisions, and at the high career salience levels, valuing intrinsic work characteristics seems to reduce the likelihood of having made an occupational decision.

The value patterns between occupational aspiration and occupational expectation appear to be similar, with minor differences in certain values (e.g. independence, advancement, benefits etc.) (Glick, 1964).

Work values also seem to differentiate satisfactorily between different occupational groups (Wollack, 1971), or levels, within the same occupational group, as in the case of differences between police science students and police officers (Zedeck, 1981), although this could denote differences in secondary socialization processes.

Finally, significant value differences were found between groups differentiated by level of job satisfaction. Job satisfaction seemed to be more closely linked to intrinsic,

rather, than extrinsic factors of work (Drummond et al., 1977).

6. Social class and work values. Research on work values and their relation to social class seems to be rather scarce and lacking in methodology. In Schwarzweller's (1960) study, social class was measured by the occupational status of the expressed choice thus the reported results must be accepted with caution. Occupational choices were classified according to Edwards' scale. Professional, semi-professional and managerial jobs were coded in the high category, all others in the low. In the case of boys, a negative relationship was observed between status choice and values on material comfort, hard work, and external conformity. On the other hand a positive relationship was found between the status of occupations chosen by the boys and creative work, work with people, and service to society. In the case of girls there was a negative relationship between status choice and "familism". Material comfort and hard work were negatively related to status choice, while mental work, work with people and service to society were positively related.

Andrisani and Miljusz (1977) report a significant relationship between preferences for intrinsic or extrinsic aspects of work and social class, in their vast sample of two cohorts of males, one of ages 14-24, and the other of middle-aged men 45-49. Social class, however, was measured by a "self-employed" - "public-sector-wage-and- salary" and "private-sector-wage-and- salary" trichotomy. In the same study, though, socioeconomic background of the family displayed *"little predictive power in explaining differences in work preferences for either group"* (p.28)

Hales and Fenner (1973) did not find any social class differences in work values but their sample was elementary school pupils and, as the authors indicate, social class differences may emerge at a later stage.

It seems that social class differences in work values either do not exist or, more probably, have not been tested adequately. For the time being, it could be argued that evidence in the literature (Centers, 1948; Centers and Bugental, 1966) points to the existence of social class differences on the extrinsic-intrinsic dichotomy, something that can be supported by theoretical speculations (e.g. Carter, 1966; Jackson and Marsden, 1962; Willis, 1977).

In view of all this evidence, we could say that work values can be a very useful construct in explaining differences in occupational choice behaviour and in throwing more light in the process itself. It is surprising, though, that no effort has been made to investigate how values come to be related with final occupational entry. Most researchers have tried to describe what values are connected with specific choices, or other kinds of work behaviour. The link between values, viewed as the core of a person's cognitive structure, and behaviour, viewed as the end - product of cognition and evaluation, has not been, in our view, adequately investigated in the case of occupational choice. A noteworthy exception could be Philips' (1964) examination of occupational choice as a "value deprivation" process.

A basic assumption of this study is that an individual embarking on the occupational choice process is in fact attempting to realize his value system, through the chosen or considered alternatives. Thus, occupational choice will be examined as a value attainment process within the broader context of motivation. In this way, values (the cognitive structure) and motivation patterns (behaviour) will be brought together in an effort to explain why an individual chooses in this way and not in another, and why he is motivated toward certain alternatives and not others. In this way it is believed that different aspects of occupational choice theory (e.g. developmental, differential, socialization, opportunity structure etc.) will also be brought together.

4. Occupational Choice-A Motivational Approach

The third concept on which this research was based was the concept of motivation. In an effort to to combine both psychological and sociological elements in the examination of the occupational choice process, we decided that values, and work salience (attitudes), as well as motivation, in which psychological elements (perceptions, personality) and social or cultural structures (valued goals, socialization patterns) meet in individual behaviour, could serve as our investigatory tools.

Such an approach was first suggested by Kuvlesky and Bealer (1966) who pointed to the ambiguity that the concept of aspiration entailed. It is fruitless simply to try to define a person's goals; people, according to Kuvlesky and Bealer, may hold a number of different goals at any one time, but what is of importance is the strength of their orientations towards particular goals, and how strongly each goal is held in relation to others.

Timperley (1974) taking up this line of thought suggests that an integration of psychological and sociological elements could be attained by the use of a cognitive social - psychological approach and as such he thinks that Vroom's (1964) model could be employed:

"One of the major motivational discussions of occupational choice is that by Vroom, who to a considerable degree does succeed in giving to his theory of occupational choice a social-psychological perspective. Vroom, though essentially a motivational theorist, does acknowledge the two-way nature of

the motivation process, emphasising not only the effect of motivational variables on people's behaviour in obtaining and performing work roles, but also the effects of the entry process and the work role on motivational variables. In this respect, therefore, it is possible for occupational choice to be treated as a function of the relationship between the motives of persons, and the actual or cognised properties of work roles". (Timperley, 1974, p. 70).

Vroom's theory of work motivation belongs to the expectancy-value theories of motivation and shall be examined thoroughly in the next chapter. Herriot and Ecob (1979) believe that use of such models is complementary to structuralist and developmental theories. Kidd (1981), writing of similar approaches, says that studies carried out employing expectancy - value models have demonstrated particularly the contribution of the individual's own work values, the rewards he sees from work, and his view of the attainability of the occupation, in the explanation of the choice process. To this we could add that, to the extent that work values and perceptions of attainability, and a number of other elements that the model allows to be added, reflect social, or even economic structures, the scope of the use of such a model can extend from the examination of individual behaviour to speculations on group behaviour.

4.1. The concept of work motivation

Motivation can be conceptualized as "The "whys" and "wherefores" behind our actions" (The ABC of Psychology, Penguin, 1981). A motive is "an internal state which leads to

behaviour being directed in a particular direction or towards a known goal." (Evans, 1978).

Work motivation can be defined as "conditions which influence the arousal, direction, and maintenance of behaviors relevant in work setting " (McGormick and Ilgen, 1981, p. 261); Campbell and Pritchard (1976) explain this concept further:

"It seems most meaningful to view motivation as a label for the determinants of (a) the choice to initiate effort on a certain task, (b) the choice to expend a certain amount of effort, and (c) the choice to persist in expending effort over a period of time. That is, motivation has to do with a set of independent / dependent variable relationships that explain the direction, amplitude, and persistence of an individual's behavior, holding constant the effects of aptitude, skill, and understanding of the task, and the constraints operating in the environment."(p.65)

This, translated to occupational choice terms, would mean that a motivational approach would seek answers to the following questions: 1. What has determined the choice of the individual to pursue a particular occupation? 2. What is it that makes the individual persist in the pursuit of the occupational goal? 3. Why is the individual prepared to go through intermediate courses of action in order to attain the final goal?

The answers to these questions would include a variety of situational, cognitive and affective factors many of which should have their roots embedded in previous developmental, social, and cognitive patterns and frameworks, the origins of which are not of direct interest to the approach. In this way

attention would be shifted from the "Who chooses what?" question to "How does one choose?"

Warr (1975; 1976) discussing theories of work motivation suggests that we should be concerned with specific actions and a person's reasons for wanting these actions or not wanting them:

"Reasons involve thoughts and wants about oneself and one's situation, so that to understand motivation we have to study thinking and wanting. Whether or not these processes are reflected in behaviour" (1976, p. 144)

Warr identifies nine types of "reasons" connected with work motivation theory:

1. Intrinsic desirability of an immediate outcome.
2. Intrinsic desirability of consequential outcomes.
3. Social comparisons.
4. Social pressures.
5. Trends in aspiration levels.
6. Perceived probability of attainment.
7. Habits.
8. Other wants and actions.
9. The structure of actions.

Every choice situation is one of immediacy and although the antecedents of a particular choice behaviour can be sought in the development and the psychological make-up of the individual, the choice behaviour itself is a separate action determined primarily by immediate cognitions and situational factors. These could operate differently if the same individual were facing a different situation. On these grounds and on the grounds of

evidence from motivational research and speculation it is here contended that a fruitful way to examine and understand occupational choice would be to do it in a motivational, ahistorical framework, concentrating on the immediate factors influencing and determining the choice behaviour. Such an approach, though, would also allow for subsequent examination of developmental or other antecedents of choice and of group differences.

Within such a framework, we thought that the inclusion of personal values in a motivational model, in a way that will be described later, would give us some indications with regard to the way that social structures and the socialization process reflect on individual behaviour. That would be a first step that would probably allow further extrapolation to the sociological level of analysis, more specifically to speculations on how social demands are translated into individual perceptions and aspirations.

4.2 Cognitive Models of Motivation

Not all work motivation theories have dealt with the occupational choice process. Most of them have been mainly concerned with job satisfaction and job efficiency and performance. Only theories labelled "cognitive" or "expectancy - value" have tapped aspects of work behaviour connected with occupational choice. All these theories have their origin in the work of Kurt Lewin (1935; 1938) and in the cognitive developments from Experimental Psychology associated with Tolman's work.

Lewin argued that psychology must develop a more coherent and

useful conceptual scheme for thought about the contemporaneous determinants of actions, than the one provided by the S-R theories. His theory of motivation developed from the principles of Gestalt psychology, according to which the perception of an object is influenced by the field of forces surrounding it, and the interrelationships of these forces. Similarly, Lewin argues that behaviour occurs within a psychological field and that, at any given moment, it is determined by many interacting forces. His conceptual representation of human motivation took a mathematical form in his famous equation: $B=f(P,E)$.

Behaviour (B) must be considered a result of the interaction of the person (P) and the immediate environment (E). Thus, the principle of contemporaneity was stressed, i.e. the only determinants of behaviour, at a given time, are the properties of the person (P) and the immediate environment (E), as it exists for the person at the time.

His approach was ahistorical, emphasizing conditions existing at the moment behaviour is taking place, all the antecedents of present behaviour having contributed to the properties of the person existing at the moment of action. As Victor Vroom (1964) says:

"Ahistorical models of choice behavior bypass many of the problems that concern the psychologist interested in learning. The choices made by a person in a given situation are explained in terms of his motives and cognitions at the time he makes the choice. The process by which these motives or cognitions were acquired is not specified nor is it regarded as crucial to a

consideration of their present role in behavior."(p.14).

The general format of cognitive models of motivation, according to Heckhausen and Weiner (1980) is : S - Cognition - R, that is an antecedent stimulus, viewed as a form of information rather than stimulation, is conceived, encoded and transformed into a "belief". Peters (1977) suggests that there are two assumptions underlying such models; first, that the behaviour is rooted in the belief system of a person (expectancy beliefs, instrumentality beliefs) and second, that these beliefs are based, at least in part, on the actual environment in which one finds himself.

It is our belief that the great impetus of research on occupational choice seems to be turning from developmental and matching approaches to motivational and decision - making ones. This should be in line with the general trend in organizational psychology where an increased interest in motivation has been observed (Mitchell, 1979).

We shall consider next Vroom's theory of work motivation that has been extensively tested in the occupational choice setting. Other expectancy-value theories that have been applied to a larger or lesser extent to the occupational choice setting are: the Subjective Expected Utility (SEU) theory (Edwards, 1954; 1961) and the Achievement Motivation theory (McClelland, Atkinson, Clark and Lowell, 1953; Atkinson, 1957; 1960; 1964; Atkinson and Feather, 1966; Atkinson and Birch, 1978). The first theory has traditionally been connected with economic decision theory but some efforts have been made to connect it with

occupational choice (cf. Holmstrom and Beach, 1973; Muchinsky and Fitch, 1975), and the latter theory, after an early application in this setting (Mahone, 1960), has recently recently shown an increased interest in related topics (Atkinson and Raynor, 1974; Raynor, 1974; 1982).

4.3 Vroom's Expectancy-Value Theory Of Work Motivation

Vroom's theory of work motivation has received great attention since it was first presented in 1964. It has a great similarity, in its basic cores and axioms, to the SEU model that preceded it as Starke and Behling (1975) point out.

Vroom (1964) uses the term motivation "to refer to a process governing choices made by persons or lower organisms among alternative forms of voluntary action" (p.6). His theory deals with the major aspects of work behaviour: occupational choice, job satisfaction, and job performance. It assumes that individuals cognitively consider alternatives and make choices, within the limits of their capabilities. The theory is concerned with 1) The elements of cognitions that go into the decision, and 2) The way these elements are processed by an individual for a decision to be reached.

Vroom's theory incorporates two models: the valence model which can be used to predict job satisfaction, occupational preference, or the valence of good performance, and the force toward behaviour model which, according to Vroom can be used to predict occupational choice, work effort, or remaining on the job.

The valence model in equation form is as follows:

$$V_j = f_j \left(\sum_{k=1}^n (V_k I_{jk}) \right)$$

where V_j : the valence of outcome j ; I_{jk} : the cognized

instrumentality of outcome j for the attainment of outcome k ; V_k : the valence of outcome k ; n : the number of outcomes. Or in theoretical formula: "The valence of an outcome to a person is a monotonically increasing function of the algebraic sum of the products of the valences of all other outcomes and his conceptions of its instrumentality for the attainment of these other outcomes." (Vroom, 1964, p. 17).

For a better clarification of the above model we need to define the two concepts: valence, and instrumentality.

Valence is conceptualized as "affective orientations toward particular outcomes", in other words a person's desire for an outcome, or the attractiveness of the outcome to the person. "In our system, an outcome is positively valent when the person prefers attaining it to not attaining it (i.e. he prefers x to not x). An outcome has a valence of zero when the person is indifferent to attaining it or not attaining it (i.e. he is indifferent to x or not x), and it is negatively valent when he prefers not attaining it to attaining it (i.e. he prefers not x to x). It is assumed that valence can take a wide range of both positive and negative values." (p.15). Valence is anticipated satisfaction, as opposed to value which is actual satisfaction which may have been experienced to satiation and thus no longer be desired, or simply may not be desired at a particular point in time.

Instrumentality is defined conceptually as the degree to which the outcome in question is seen as leading to the attainment of other outcomes. It is conceived of as subjective

correlation between two outcomes, an outcome-outcome association that "can take values ranging from -1, indicating a belief that attainment of a second outcome is certain without the first outcome and impossible with it, to +1, indicating that the first outcome is believed to be a necessary and sufficient condition for the attainment of the second outcome." (p.18)

Simply stated, the above model, in the case of occupational preference, which is our concern here, means that the attractiveness of an occupation depends on the attractiveness of the second-order outcomes to which the occupation leads, and on the degree to which valued or not valued outcomes are perceived to be connected with the occupation.

Occupational preference is viewed by Vroom thus:

"The preferred occupation of a particular individual at a given time is defined as the occupation which at the time has the highest positive valence." (p.53) and:

"Preferences among occupations are also defined in terms of their relative valence and are predicted to be systematically related to the estimated consequences of entry into these occupations and the valence of these consequences for the person." (p.54)

Vroom's force model employs again the concept of valence plus the concept of expectancy: "An expectancy is defined as a momentary belief concerning the likelihood that a particular act will be followed by a particular outcome. Expectancies may be described in terms of their strength. Maximal strength is indicated by subjective certainty that the act will be

followed by the outcome while minimal (or zero) strength is indicated by subjective certainty that the act will not be followed by the outcome" (p.17). Expectancy is an action-outcome association, it can take values ranging from zero to +1.

"The force model is conceptualized as follows:

The force on a person to perform an act is a monotonically increasing function of the algebraic sum of the products of the valences of all outcomes and the strength of his expectancies that the act will be followed by the attainment of these outcomes."(p.18).

In equation form:

$$F_i = f_i \left(\sum_{j=1}^n (E_{ij} V_j) \right)$$

where F_i =the force to perform act i ; E_{ij} =the strength of the expectancy that act i will be followed by outcome j ; V_j = the valence of outcome j .

Stated differently, an individual's force to perform an act (i) is assumed to be the result of a multiplicative function between the expectancy that act (i) will lead to outcome (j), and the valence of this outcome (j). The products of these functions summed across all outcomes (j)($j=1...n$) will designate the magnitude of force to perform act (i). This is put in the occupational choice context as follows: "The chosen occupation is assumed to be that occupation toward which there is the strongest positive force"(p.54).

In occupational choice terms, the model would mean that the choice of an occupation is dependent on the attractiveness of the second-order outcomes and the subjective probability of getting them, which could mean that less attractive outcomes with high chance of attainment could cause more "force" than more attractive ones with lower chances of attainment.

Vroom's theory instigated a surprising amount of research mainly in the organizational setting (job satisfaction and job performance), but most significantly, a great deal of research testing the theory itself or aspects of it, and methodological and/or conceptual issues. A considerable amount of research, though, was dedicated to occupational preference (cf. Vroom, 1966; Sheard, 1970; Vroom and Deci, 1971; Wanous, 1972; Muchinsky and Taylor, 1976; Steinlauf, 1978; Schmitt and Son, 1981), and occupational choice (cf. Sheridan, Richards and Slocum, 1975; Inskeep, 1978; Wheeler, 1978; Erez, 1979).

For the purposes of this research we decided to use the "valence" model (occupational preference), as we assumed that it was more suitable for our subjects, secondary education pupils who were about to make occupational and educational choices. As they were not very near these choices and the results of these choices were not in fact always contingent on the choice behaviour, which would make the measurement of expectancy rather difficult if the "choice" model was to be used, we thought that the "valence" (preference) model would give more fruitful results. We made the assumption that as valence is conceptualized as anticipated satisfaction, if we employed personal values

as the perceived outcomes, our valence scores would indicate the degree to which such values were perceived to be satisfied through the different occupational/educational alternatives on which the model would be applied. Thus for the purposes of this research we refer to valence scores as "value attainment scores". This approach is in fact the reverse from the one employed by Philips (1964) who measured "value deprivation" and similar to an approach employing needs (Schmitt and Son, 1981) which was published after this research had been conducted.

Next, we shall first examine some of the studies employing the same model, in more or less the same setting, and then we shall refer to the main problems related with the theory.

4.4 Previous Research Employing the Valence Model in an Occupational Preference Context.

Vroom (1966) examined graduate students in a school of industrial management who were nearing the end of their course. After "surveying the market" but before making their choices, each subject ranked the three more attractive organizations, rated each goal, from a list of fifteen, in terms of importance first, and then "in terms of the extent to which he believed that he would be able to attain them within each of the three organizations." (p.216). As the main aim of the study was to measure dissonance reduction processes, the procedure was repeated four weeks later, when choices had been made. A mean instrumentality - goal score was computed. These scores for organizations in order of rank were .63, .33, and .19 before choice, and .64, .23, and .16 after choice. About 60% of the

subjects (of a total of 37 subjects) chose the organization which at the time of the first measurement had the highest instrumentality-goal score, about 20% the second, and 10% the third (there were also four ties-10%). Vroom concludes: *"The first hypothesis -that the attractiveness of an organization to a prospective member is directly related to his beliefs concerning its instrumentality for the attainment of his goals- was strongly supported by the data."*(p.223).

As concerned the dissonance reduction processes, findings suggested that subjects tended to perceive the organization which they had chosen as more attractive and as more instrumental to goal attainment after, rather than before choice, something that decreased markedly later, as a follow-up study showed (Vroom and Deci, 1971).

Sheard (1970) had subjects rate the importance of 20 work goals and the perceived attainability of these work goals in six different types of organizations, in order to obtain valence measures and predict expressed preferences for the six organizations (the same for all subjects). The Valence x Attainability scores were then correlated with the ratings of the organizations, and the averages of these correlations ranged from .78 to .82. In essence, this was a violation of the original suggestion by Vroom, as the "force" model was actually used to predict preference.

Wanous (1972) had subjects rank order occupations and then computed a SIV (Instrumentality x Valence) score for each one.

Mean SIV scores were significantly related to the overall occupational ranks.

Mitchell and Knudsen (1973) collected responses to a questionnaire from 106 subjects. They obtained measures for the following variables: attitude toward business, occupational choice (expressed intentions), evaluation of outcomes (12 outcomes rated on three 7-point bipolar scales), instrumentalities (on a probable-improbable 7-point scale), and two social dimensions: motivation to comply, and expectations of others. In their list of outcomes they included outcomes of three different categories: social (e.g. improving the environment, furthering peace, equal opportunity etc.), extrinsic (e.g. salary, promotion, security etc.), and intrinsic (e.g. autonomy, creativity, intellectual growth etc.). The criterion variables in their study was attitude toward business and occupational choice. The multiple zero order correlations were .69 (for business) and .38 (for choice) when the SIV (preference) model was used, and .70 and .54, respectively, for the SIV + the social variables (motivation to comply and expectations of others). Their conclusions were that the theory seems to predict well attitude toward business and relatively well occupational choice, and that the SIV total accounts for almost all the variance in the attitude score and for about half of the variance for the prediction of occupational choice, the other half being accounted for by the social variables.

Muchinsky and Taylor (1976) presented a test of the valence (SIV) model with 46 subjects, psychology majors. They were asked to rank order in terms of preference eight educational or

employment positions they could seek following their graduation. They were also asked to rank order in terms of attractiveness 15 outcomes, and then to rate them on a scale from zero to 100. Finally, subjects were asked to rate the perceived likelihood that each outcome could be satisfied (i.e. instrumentalities) by each educational and employment position. A SIV score was computed for each position and was correlated with the preference ratings for each occupation for each subject. Then a t-test was used to compare mean correlations. As the study was basically designed to test different methodological aspects of the model, only mean correlations for the two most wanted occupational alternatives (graduate degree in psychology, and graduate degree in professional area) are reported, which are .77 and .76, respectively.

Similar results in support of the use of the SIV model for the prediction of occupational preference have been reported by Wheeler (1978) and Steinlauf (1978). More recently, Schmitt and Son (1981) used a SIV model to predict choice, employing as its set of outcomes items which purported to measure existence, relatedness and growth needs, thus the valence model was tied with a theory of need structure (Alderfer, 1972). The results supported use of the valence model. Finally, employing a design similar to ours West (1983) used Vroom's model with Rokeach's set of Life Values to predict occupational preference. The results supported both the use of such a model and the use of values as the outcomes sought to be realized in the choice of an occupation.

In general, we can conclude that the valence model has been

successfully tested as an instrument for the prediction of occupational preference with considerable support for Vroom's theory. This could have an impact on counselling practices.

As it is put by Mitchell and Beach (1977):

"There are two possible implications of these results. One suggestion might be that if job candidates actually thought out what occupational outcomes were important and unimportant, and how likely it was that various occupations would lead to those outcomes, they might make more rational and satisfactory choices. A second suggestion is that counseling and guidance efforts might concentrate on providing more information about the actual likelihoods of attaining various outcomes, and the chances of a particular candidate's being able to attain the occupation rather than the more traditional information about how similar the candidate is to those people already in the occupation." (p.p.220-221)

4.5 Conceptual and Methodological Issues Associated with the Expectancy-Valence Theory.

Mitchell (1974, 1982) has pointed to all the conceptual and methodological problems associated with the theory. We shall try to mention the most important ones and, in particular the ones associated with the valence (SIV) model. Mitchell (1982) distinguishes three kinds of issues: Methodological, empirical, and theoretical.

Methodological issues concern the number and the content of outcomes and the measurement of expectancies, valences and instrumentalities.

As concerns the number of outcomes, it seems that there is a general consensus that large numbers of outcomes decrease predictability. There is disagreement as to the exact number that would enhance the predictive power of the model but most researchers would agree on a number not less than 8 or 9 and not more than 15 (cf. Schwab, et al., 1979; Leon, 1979). Another issue concerns the way the lists of outcomes to be rated for valence should be created (i.e. subject or investigator generated lists). There seems to be unanimous agreement that subject generated lists and subject relevant outcomes give better prediction (cf. Mitchell, 1974; Matsui and Ikeda, 1976; Herriot and Ecob, 1979). It seems that for purely practical reasons such a design has rarely been employed. To our knowledge only Starke and Behling (1975) used unique lists involving the four most desired and two least desired outcomes for each subject. Matsui and Ikeda (1976) had part of their sample

generate five outcomes of their own whereas another part rated a standard list of 10 outcomes. The self-generated list gave better prediction.

The problem of the content of outcomes has to do with the use of negative-positive, and intrinsic-extrinsic outcomes. Empirical evidence is not very clear concerning these issues. Thus, Mitchell and Knudsen (1973) and Kopelman and Thompson (1976) report better prediction with extrinsic outcomes, while Steinlauf (1978) reported no difference and Parker and Dyer (1976) reported that the intrinsic model gave slightly better prediction. Similar results are reported concerning the problem of positive - negative outcomes (cf. Parker and Dyer, 1976; Muchinsky and Taylor, 1976).

Instrumentality measures seem to cause some problems. Most researchers have treated instrumentality as a probability (e.g. Dachler and Mobley, 1973), and they do not assign it negative values, which is contrary to Vroom's suggestion that it should be treated as an outcome-outcome correlation taking values from -1 to +1. According to Mitchell's review "to date little evidence is available as to which strategy is most valid" (1982, p.302).

There seems to be more agreement on the issue of the measurement of valence, most investigators treating it as importance, although Vroom conceptualized it as anticipated satisfaction. It seems though, that he himself soon adopted the "importance" treatment. In his study (1966) he asked subjects, after studying the list of outcomes "to rate each goal on a five point scale

of importance according to a 2, 3, 5, 3, 2 distribution (i.e. select the two highest in importance, the next three highest and so on)" (p.216). Other researchers, though, reject such a design (Dachler and Mobley, 1973), and as it was said earlier, as far as we know, only Starke and Behling (1975) asked subjects to rate valence as the amount of satisfaction they would feel if the relevant outcome was attained.

Empirical issues concern mainly the weighting of Is by Vs (in the case of the SIV model). There seems to be overwhelming evidence that unweighted (additive) scores did as well as weighted ones (c.f. Mitchell, 1974; Sheard, 1970; Wanous, 1972; Mitchell and Knudsen, 1973; Muchinsky and Taylor, 1976; Steinlauf, 1978; Wheeler, 1978).

The main theoretical issue is that the model has been used extensively in an across-subjects design, whereas the original theory suggested a within - subjects analysis. A within-subjects analysis can be conceptualized as a contingency table with two categories: predicted behaviour, actual behaviour, a design adopted by Sheard (1970), Mitchell and Knudsen (1973), Parker and Dyer (1976); Muchinsky and Taylor (1976), Teas (1981), Schmitt and Son (1981) and many others. An across-subjects design is basically a correlational one where SIV scores are assumed to have the same meaning for all the subjects, and are thus correlated with the criterion (usually ranked or rated occupational alternatives, in the case of occupational preference). Mitchell (1974) points to one of the problems connected with an across subjects design:

"For example, response sets often confound the predictions. Thus, someone who systematically rates the extremes on scales will have a behavioral prediction that is very different from a "conservative" subject even though they feel the same way". (p.1070) .

To this we could add Parker and Dyer's (1976) remark: *"...between persons tests of expectancy theory may tend to show reduced validity through no theoretical fault of the model." (p.98).*

Mitchell (1982) suggests that the closer the methodological procedures are to the original formulation the better the prediction, but he adds a note of caution, that results show that even at its best (i.e. thorough, controlled, within - subjects tests) the model seldom accounts for more than 50% of the variance in the criterion.

Finally, there is some evidence that the inclusion of normative components, e.g. expectations of others (cf. Mitchell and Nebeker, 1973; Parker and Dyer, 1976) or of actual environmental conditions (Peters, 1977; Herriot and Ecob, 1979) will enhance the predictive power of the model.

Summing up this extended review of the main concepts, uses, conceptual and methodological issues connected with Vroom's expectancy-value theory, we shall summarize Mitchell's (1982) main conclusions:

1. Most researchers agree that the model does not describe actual motivational processes.

2.It is utilized because at an intuitive level it feels right, and because it has proved to be helpful in pointing out that behaviour-outcome links are important as well as the evaluation of outcomes.

3.The main issue that seems to be emerging is: "When is expectancy theory right or wrong?" It seems that some environments, some people and some circumstances are more likely to result in an expectancy-like process than others.

5. Instruments

The instruments used in this research were: The Work Quiz for the measurement of work salience or "the meanings of work", a revised version of the terminal values set of the Rokeach Value Survey, an adaptation of Super's Work Values Inventory, and a structured interview.

5.1 The Measurement Of Work Salience - The Work Quiz

The Work Quiz (WQ) is an inventory designed by K.F. Taylor (1975) to measure what he called "orientations to work". These orientations were conceptualized as being different from job satisfaction, occupational preference, and job involvement. They are concerned with what work means to people, its centrality in people's lives.

Taylor's work is categorized by Kidd and Knasel (1980) in the work salience literature, and as such a measure it has been employed here. In a previous section we examined issues related with work salience. What must be pointed out here is that work salience literature concerned with young people about to enter the world of work is rather scarce. On the contrary, it is abundant as concerns people who have already experienced work. The inclusion of the Work Quiz in this study aimed at obtaining a measure of work salience in our sample.

One distinct advantage of the Work Quiz was that it had been tested with a sample of high school pupils, which made it more suitable for the sample of this research. Another scale that was

considered for the same reason was the Meaning and Value of Work Scale (MVWS) by Kazanas, Hannah, and Gregor (1975) which had the additional advantage that it was aimed solely at secondary education pupils. Unfortunately this scale was unobtainable, as its authors did not respond to a request for material pertaining to their work.

Taylor's Work Quiz was used in this research on the basis of three main considerations: a) It had been tried before with a similar sample of secondary education pupils; b) Intuitively, it looked more suitable, in terms of the content of its items and the face validity of its scales, for use with a sample of Greek pupils; c) There was detailed information available for comparison and possible adaptation.

Taylor (1975) after an extensive review of the literature on occupational choice, identified three different types of explanation, from the chooser's point of view: *Occupational choice may be an opportunity for actualization; it may be as a result of calculation of the costs and benefits of alternative courses of action; or it may occur because people accept the destiny which their socio-economic circumstances and earlier socialization make available to them. For many individuals, it has been suggested, all three explanations play some part in accounting for their choice. Each type of explanation implies a different way of looking at and evaluating work, and have been called Actualizing, Calculating, and Traditional (p.61).*

The first form of Taylor's Work Quiz (WQ) consisted of 33 items, allocated in the three scales as follows: 11 Actualizing

items, 10 Calculating items, 11 Traditional items, and "one which (pending further analysis) was judged as probably Calculating, but perhaps Traditional". Rating of individual items was done on a five-point scale. A first factor analysis presented a five factor solution. A few years later, a new factor analysis, with different samples, presented 3 factors, and three new scales were created with 25 of the original 33 items. The three factors, though, accounted for only 19% of the variance. The three new scales were:

Responsibly Committed: "The person who endorses this group of items not only seeks strong involvement and competent performance in his work for the sake of his own; but also there is the suggestion that he has some altruistic reasons for working." (p.107)

Traditionally Comfortable: "It seems that people who endorse these items do not expect their work to be very exciting or fulfilling, but they want it to be comfortable, respected, and in keeping with the expectations of friends and family" (p.108)

Passively Unconcerned: Lack of any enthusiasm for work, work not seen as involving and as an opportunity for self-realization, no wish to give anything to work, no expectations from work.

The 33 items of the Work Quiz, their abbreviated form, their initial classifications (A = Actualizing, C = Calculating, T = Traditional) and their final classifications (RC = Responsibly Committed, TC = Traditionally Comfortable, PU = Passively

Unconcerned) with their factor loadings on these last scales are presented in Table B in the Appendix.

It was decided that no firm assumptions should be made in this research about the final scales of the WQ, before it was newly factor-analysed on the basis of our sample's responses. It was assumed, on the grounds of the investigator's long contact with Greek secondary education pupils, that the WQ items would elicit some meaningful responses, with some reservations about the items that related to already acquired work experience, as most of the subjects were not expected to possess any. Thus no modifications were made and all 33 items were administered to the subjects. It was hoped that if any clear-cut dimensions appeared they would be examined and analysed in conjunction with other parts of the research, and in particular values, and thus the correlates or determinants of the different attitudes to work, that would appear in our sample, would be further investigated.

In addition to the Work Quiz, a number of open-ended questions in the structured interview that consisted part of this research aimed at obtaining measures of work salience, but because of the stereotypic answers most people give to questions relating to work, it was not hoped that such questions would offer more than indications of real attitudes.

5.2 The Measurement of Values

Two instruments were used for the measurement of values in this research, the Rokeach Value Survey (RVS) and an adaptation of Super's Work Values Inventory. As the Rokeach Value Survey is an instrument based on an integrated theory on the importance of values in the social sciences and has been used extensively in empirical research, we shall refer to it in more detail. In addition, Rokeach's theory on the nature of human values can provide the theoretical underpinning for any value-related research.

5.3 The Rokeach Value Survey (RVS)

The Rokeach Value Survey consists of two sets of values - 18 terminal values and 18 instrumental values. The terminal values are assumed to concern end-states of existence, whereas the instrumental values are assumed to represent modes of conduct. The individual items included in each set of the RVS were selected on the basis of a combination of research and intuition, the number 18 rather arbitrarily set: *"As can be seen, the overall procedure employed in selecting the two lists is admittedly an intuitive one, and there is no reason to think that others working independently would have come up with precisely the same list of 18 terminal and 18 instrumental values."* (Rokeach, 1973; p. 30)

The two sets of values with their defining phrases are presented in the Appendix.

The first form of the RVS (Form A) consisted of 12 items in each set. The defining phrases were later added and the number of values was increased to 18 (Forms B and C). Forms D and E, the former with gummed labels that are placed in ranking order, the latter in a column format with blank spaces for the rankings to be marked, showed increased reliability and are considered to be the final form of the Survey. Form D (gummed labels) seems to be somewhat preferable to all other forms: reliabilities are higher and it is easier to use.

5.4 Reliability of the Rokeach Value Survey

Rokeach reports two kinds of test-retest reliabilities, one for value systems and one for individual values. Value system reliability (Form D, 3 to 7 weeks) ranges from 0.78 to 0.80 (median 0.74) for terminal values and 0.70 to 0.72 (median 0.65) for instrumental values. The median reliability after a 14 to 16 months interval (N=204 college students) appears to be 0.69 for the terminal and 0.61 for the instrumental values, something that according to Rokeach shows the value system stability over long periods of time.

For single values (Form D, 3 to 7 weeks) product-moment reliabilities range from 0.51 to 0.88 (median 0.65) in the terminal values set and from 0.45 to 0.70 (median 0.61) in the instrumental values set. Feather (1972b) reports median test-retest reliabilities of 0.74 and 0.70 for terminal and instrumental values, respectively.

The Value Survey was also tested for order effects, as it is

presented in alphabetical order, but Cochrane and Rokeach (1970) conclude that any such apparent effect in the set of instrumental values was due to the fact that the values which appeared at the top of the list really were more important to many subjects than the ones appearing lower. There is also indication that there is no social desirability effect present in scoring the terminal value scale (Rokeach, 1973).

The 36 values of the two sets appear to be negligibly correlated but Rokeach's factor analysis showed that the two sets of values are not totally unrelated: seven bipolar factors emerged accounting for 41% of the variance, only one of which was purely "terminal", and another one purely "instrumental" in that they contained items from one list. No one factor, though, accounts for more than 10% and thus Rokeach (1973) concludes that the 36 values cannot safely be reduced to a smaller number. Such a conclusion was also reached by Feather and Peay (1975) who employed multidimensional scaling and clustering techniques which are more suitable for ordinal data, such as these are.

Concerning the problem of the semantic meaning of the items in the two sets, which we consider the most important issue associated with verbal cues aiming at eliciting responses, as we shall point out later, in the results section, Rokeach claims that far more important than the semantic meaning is the psychological significance that a particular value has for a particular person. This significance can be inferred from observation of the ranks allocated to other individual values in the set, and to this effect Rokeach presents the example of the ranking of "freedom" in relation to the ranking of "equality".

The exact meaning attributed to each can be inferred by the ranking also given to the other.

Rokeach enumerates the advantages of the Value Survey thus: - It is simple in design and economical to administer to individuals and groups.

- It is easily grasped by people of all ages, and it is usually found, especially the gummed label version, interesting, thought provoking, and ego-involving.

- Responses to the Value Survey are directly expressed in quantitative terms, thus eliminating the need to score it. And he concludes:

"Unlike other projective tests, however, it does not have to be disguised, does not allow free responses, and does not require trained personnel to administer it. As far as is presently known, it is free of such methodological defects as order effects and social desirability response sets. It yields separate quantitative measure of values and systems of values. (...) It can be employed to test theoretically derived hypotheses but it can also be used in a purely empirical manner to describe similarities in and differences between any two groups one may happen to be interested in. Finally, the Value Survey can be meaningfully employed across all the social science disciplines to provide data that are substantively relevant to each discipline.(p.51-52)"

5.5 Studies Employing the Rokeach Value Survey

Rokeach has used the Value Survey in a number of studies to examine differences and similarities between different groups

differentiated by sex, age, income, ethnic and racial origin, political affiliation, religion etc. In all cases the survey differentiated between groups satisfactorily. Other studies that support the use of the RVS are reported by Sutherland and Tanenbaum (1975) and Munson and Posner (1980), but the most impressive body of research connected with values in general, and the RVS in particular, is the work of Norman Feather (1970; 1971a; 1971b; 1972a; 1972b; 1974; 1975; 1982a; 1982b; 1982c) which we shall examine in more detail because it is not only concerned with empirical evidence, but also with the theoretical underpinning of the employment of values in psychological research.

Feather (1975; 1982a; 1982b) set out to examine value differences and similarities but he soon proceeded to an effort to connect value research with the expectancy-value theory of motivation. His considerations revolve around two main axes: the person-environment fit, and the motivational aspects of values.

The person-environment fit and in particular the value fit, is viewed in terms of what Feather calls cognitive ecology "a mapping of the person-environment system from the viewpoint of the person" (1975, p. 60). Perceived information from the environment may be discrepant with the person's corresponding abstract structures (one of which is his value system) and it is assumed that the person will attempt to resolve these structural discrepancies in order to achieve a relatively stable view of his physical and social environment. It is also assumed that if there is a choice situation the person will be biased toward those environments that minimize the discrepancies. Feather

investigated discrepancies between own and perceived environment rather, than the objective environment "in the belief that it is important to deal with the meanings that individuals assign to stimulus input, in this case with the value priorities they perceived as being promoted by the environments they were asked to consider" (p.273). He recognizes, though, that future research should concentrate on the sources in the environment that influenced the attributed value priorities. He summarizes his findings thus: "The research that we reported focused upon educational choice and educational adjustment, using students from secondary and tertiary institutions. Evidence showed that students tended to select educational environments that were congruent with their own value systems, and that they were more likely to be happier and more satisfied with these environments as congruence increased" (p.275).

A person-environment mismatch, though, is not necessarily detrimental to the overall existence of the person, as dissatisfaction that comes from a poor value match may be compensated for by satisfaction arising from a different person-environment match (e.g. dissatisfaction at work - satisfaction at home). Some discrepancies, though, are considered to be more important than others, something that depends on the degree that the mismatch involves values that are especially important to the individual. It also depends on the authority of the sources that promote the discrepant values of the environment.

Feather found evidence that the educational choice made by students was related to the relative importance of the values they held (1970) and that the students' own value systems

resemble more closely the perceived value system of the school they enter, than the perceived value system of the school they reject (1971a). In another study Feather investigated the resemblance of students' value systems with the perceived value system of the school they attended. He found more pronounced similarities in students attending independent schools and more particularly among boarders (Feather, 1972a). Differences in value systems were detected between students attending different programs of study at university level (Feather, 1974). The results were supportive of the hypothesis that values are involved in educational choice.

Another part of Feather's studies concentrated on a mapping of value systems for different segments of society and for different cultures (e.g. males - females, student activists - nonactivists, delinquents - nondelinquents, Australians - Americans, Australians - migrant groups etc.). He outlines the importance of such studies:

"It would be wrong to underestimate the importance of discovering just where the similarities and differences in value priorities lie between individuals, groups, organizations, institutions, and cultures. These similarities and differences also have to be accounted for, whether in terms of socialization and the processes of social influence, or in terms of the selective migration of people (where possible) to environments that best fit their personal characteristics, or whatever. The task of mapping value systems is a vital aspect of social inquiry and one that should be given more attention now that procedures for identifying value systems in different segments

of society and across cultures are available - procedures that can be used to obtain value systems regarding both the self and the defined environments" (pp. 277-278, Feather, 1975).

Since the choice of a similar cognitive environment and the effort to resolve discrepancies between own system and the perceived value system of the environment are of motivational nature, Feather started wondering, from an early point in his value research, whether terminal and instrumental values could be incorporated into studies of motivated behaviour involving means - ends relationships, and whether values were too global for that purpose (Feather, 1970). In his extended review of his studies (1975) he makes the theoretical connection of such speculations to the expectancy-value theory. He assumed that terminal values may influence the valence of specific instrumental behaviours or means to ends. His shift to a motivational approach to the study of values is presented explicitly in his recent work:

"This recent research is the latest in a series of studies of values from a research program that is now several years old. I was convinced by Rokeach's argument that, although value had the status of a basic concept in many of the social sciences, it had not received the systematic treatment that it deserved from psychologists. Like Rokeach, I decided in the late 1960s to try to remedy this situation and began a program of research that is still continuing. Much of this research has been concerned with mapping values across different segments of the population and also across cultures. Some studies of the program have investigated the consequences of discrepancies between personal value

system and the perceived value systems of defined environments. Other studies have examined the accuracy with which the value systems of a group can be judged by others. And, most recently I have attempted to move beyond the ecological task of mapping congruence and discrepancy in value systems to consider the relationship between values and behavior in terms of the expectancy-value approach." (Feather, 1982a, pp. 86-87)

"Specifically, I have become interested in the question of how a person's behavior relates to the values held by that person. To what extent will knowledge of a person's value priorities enable us to understand that person's actions within defined situations and what other variables may have to be taken into account in making that prediction." (Feather, 1982b, p. 265)

"I am suggesting that values as motives have this function also, sensitizing the person to perceive some potential events and activities as desirable and worth approaching or continuing with, and other aspects as undesirable, to be avoided or terminated." (Feather, 1982b, p. 277)

One of Feather's most recent studies, in his new line of thought, concerned occupational choice and preference in relation to values in a sample of medical students (1982c). He found that priorities that the medical students assigned to terminal and instrumental values, within their own value systems, were consistent with the way they endorsed various reasons for taking up medicine as career. The highest coefficients were between "status" and "a comfortable life" (0.51), "status" and "equality" (0.47) and "status" and "social

recognition" (0.49).

The reason we referred to Feather's work in so much space is because we consider it very close to the work reported in this thesis. Although the basic assumptions are similar, Feather has been moving in a different way as concerns the empirical investigation of the link between value systems, choice, and an expectancy-value model of motivation. He does not incorporate values into the motivational model, as is done in this research, and he uses the "Achievement Motivation" model (McClelland et al., 1953; Atkinson, 1957; 1960; Atkinson and Feather, 1966) as opposed to the "instrumentality" model (Vroom, 1964) employed in this research.

5.6 Criticisms of the Rokeach Value Survey

Witton (1973) criticizes "Rokeach type value research", in general in that it employs a rather ambiguous and arbitrary instrument and that it ignores the growing body of research on ideology and social action, and Feather's work, in particular, in that it has employed biased samples on some occasions - a kind of self selection taking place among parents responding to the questionnaire, when generational differences and similarities are examined. He suggests that within-family pairs of value systems should be examined, as opposed to average value systems.

McKenna (1979) admits that the RVS represents the most significant development since the introduction of the Study of Values (Allport, Vernon, Lindzey, 1960) and that Rokeach's work is unique in that it is the first to combine systematically theory, measurement, and empirical research, but he criticizes it on different grounds. He considers that the selection of the 2x18 sets was made subjectively both in number and content. He then criticizes the factor analysis presented by Rokeach in that it is affected by the ipsativity of scores (cf. Hicks, 1970) and refers to a study by MacDonald (1974) that identifies two factors in each set. More recent research, however, presents evidence for one factor per set (Munson and Posner, 1980). McKenna, also, does not consider the test-retest reliability of the RVS high, if it is to be compared to other instruments (e.g. the Strong Vocational Interest Blank-SVIB). His criticisms can be summed up as follows:

"The effectiveness of the Value Survey is limited by several conceptual and methodological problems. These limitations are primarily the result of ambiguous test stimuli, ambiguous test instructions, questionable assumptions about the nature of value systems, and the ipsative nature of the test" (p.49).

"The highly abstract meanings of many of the values in the Value Survey raise legitimate questions about their interpretative equivalence across subjects" (p.49).

"The method appears to have dictated the nature of the construct rather than the construct guiding the method" (p.53).

In order to remove some of the results of the ipsativity of the scores and the resultant statistical and methodological problems, McKenna suggests an alternative method employing a 10-point scale of personal importance with verbal anchorings. His research, though, supported Feather's contention that the test format does not substantially influence results concerning average value systems of particular groups.

5.7 The Measurement of Work Values

An adaptation of Super's Work Values Inventory (WVI) was used for the measurement of work values in this study. The Work Values Inventory "was developed to assess the various goals that motivate men to work" (Super, 1973, p. 190) and consists of 15 work value scales, each one consisting of three items. The 15 work values employed are: altruism, aesthetic, creativity, intellectual stimulation, achievement, independence, prestige,

management, economic returns, security, surroundings, supervisory relations, associates, way of life, variety.

Super (1962) classified his 15 values under three categories: a) extrinsic rewards (way of life, security, prestige, economic returns); b) extrinsic concomitants (surroundings, associates, supervisory relations, variety); c) intrinsic (altruism, creativity, independence, intellectual stimulation, aesthetic, achievement, management). A factor analysis of the WVI (tested with boys only) seemed to give four separate dimensions (cf. Super, 1973, p. 196). The first dimension (factor) consisted of material or situational (extrinsic) work values. The second factor was characterized as goodness of life (altruism, achievement, aesthetics), the third as self expression (variety, intellectual stimulation, creativity), and the fourth as behaviour control (independence, management). Other analyses have produced different factors and more in number (cf. Super, 1962). Super (1973) provides some information on how the WVI values were derived, about their construct, content, and concurrent validity, but it seems that in general the instrument is lacking in terms of supportive evidence (cf. Cook et al, 1981, pp. 152-153).

In this study only the titles of the values of the WVI were used, in a Rokeach-like fashion, and even these were adapted, thus the exact psychometric value of the instrument is of no direct relevance to the research design of the study reported in this thesis. We shall refer again to the exact design of the measurement of work values in this study in the methodology section.

6. Testing and Modifying the Measuring Instruments

The instruments used in this research were: a) A revised version of the Rokeach Value Survey; b) An adaptation of Super's Work Values Inventory; and c) The Work Quiz, an instrument aiming at the measurement of "work salience" or the "meanings of work". The two measures of values were used independently and in conjunction with Vroom's "valence" model of motivation, which has been used for the prediction of occupational preference. The measuring instruments and the motivational model were adapted to the needs of the present study after having been first tested in two pilot studies, with the exception of the Work Quiz, since the decision for the use of an attitude measure was taken after the second pilot study when it was decided that the interview questions were not adequate for this purpose.

The pilot studies were conducted in order to test or define the following: a) Whether the motivational model would predict occupational preference, if it was used with values as the second order outcomes, and which of the values in the two sets presented by Rokeach would be more suitable to use in the occupational choice context; b) Whether there would be any problems with the ranking and rating of values; c) How the subjects responded to the interview. These pilot studies, for practical reasons, were designed to give the investigator some feedback on how the instruments "worked", and whether there were any indications that his hypotheses could be meaningfully investigated in a full scale study.

6.1 The First Pilot Study

The main hypothesis tested in this study was: People tend to choose their occupations in accordance with their value hierarchies.

The hypothesis was broken into three more specific ones:

1. The most preferred occupation will provide a higher degree of value attainment than the next in order of preference etc.
2. There will be a difference in perceived value attainment between the most preferred occupation and occupations actually chosen or expected to be entered, as a result of the moderation of perceived value attainment by reality factors.
3. Value attainment in a disliked occupation will tend to take the form of value deprivation.

Vroom's "valence" model which has often been employed for the prediction of occupational preference was used in this study for the measurement of value attainment. In equation form the model reads as follows :

$$V_j = f_j \left(\sum_{k=1}^n (V_k I_{jk}) \right)$$

where V_j = the valence of outcome j ; I_{jk} = the cognized instrumentality of outcome j for the attainment of outcome k . This model is usually referred to as the SIV model.

Value attainment was operationally defined as the score that we get if we add the products of the valence of each value \times the instrumentality of each occupation in providing (or depriving) this particular value (sum of $I \times V$ scores - SIV - in Vroom's model). In other words, after the rating of each value in terms of importance, an instrumentality score would be computed, that is the degree to which the occupation considered was perceived to be positively related with this value, i.e. it provided attainment of this value, or was negatively related with the value, i.e. it deprived attainment of it. These products could be positive, if the instrumentality rating took positive values, or negative if the instrumentality took negative values. The sum of these products would give us the SIV score or perceived value attainment in this occupation. SIV scores could be positive or negative. In the later case the value score would denote value deprivation (cf. Philips (1964)).

Vroom's valence model was used to test only occupational preference, as opposed to testing actual choice by employing the force model, because the subjects of both the pilot studies and the final study would not be at the point in time that they would have to make final occupational choices.

PROCEDURE

Seven university undergraduates, five from Edinburgh University, and two from Leicester University, attending different faculties, were tested in the first pilot study. Three of the subjects were female and four male, five were British and two were Greek. The subjects were presented with three sets of

cards. The first set comprised of Rokeach's eighteen terminal values, the second set of the eighteen instrumental values of the RVS, and the third set of the fifteen work values tested by Super's Work Values Inventory. They were first asked to rank each set of values in terms of each value's importance to them, by placing the cards in ranking order. Then they were asked to transfer each ranked set onto a continuum from 0 - 100 with verbal anchorings (0 - 30: of no importance, 30 - 50 : of low importance, 50 - 70 important, 70 - 90 : very important, 90 - 100: crucial). The ratings thus obtained constituted the measurement of valence, required by Vroom's model. It was assumed that values can be important or unimportant, and not negatively important (to be avoided) and thus no negative ratings were obtained, as the model in its pure form would require.

After the rating, the subjects were asked to name their most preferred occupation, in an ideal situation where there would be no limitations from reality factors. Then, they were asked to state the occupation at which they were aiming at that moment and the occupation that it was possible for them to enter, if things did not go as expected. All the subjects, except for one, gave distinct responses about the three different occupations. One subject gave three different conditions of working in the same field. Subjects were also asked to name one occupation that they disliked.

Subsequently, they were given three sheets of paper on each of which there were: a) One set of values (terminal, instrumental, and work values); b) The four occupations they had named; and c) A 9 point verbally anchored scale aiming at providing a measure

of the probability of attaining each of the outcomes (values) under each of the four nominated occupations.

The 9 point scale represented ratings from +1 to -1 (1, 0.75, 0.50, 0.25, 0, -0.25, -0.50, -0.75, -1). These ratings were multiplied by the valence score (0-100) obtained previously for each value. Thus for each of the four occupations for each subject there were three different SIV scores, one for each set of values obtained from the multiplication of the valence (rating from 0 to 100) of each outcome (value)-which was constant across occupational conditions, by the instrumentality of this particular occupation in providing this outcome. This sum of $I_s \times V_s$ for each occupation mentioned was assumed to represent the degree of perceived value attainment in this occupation.

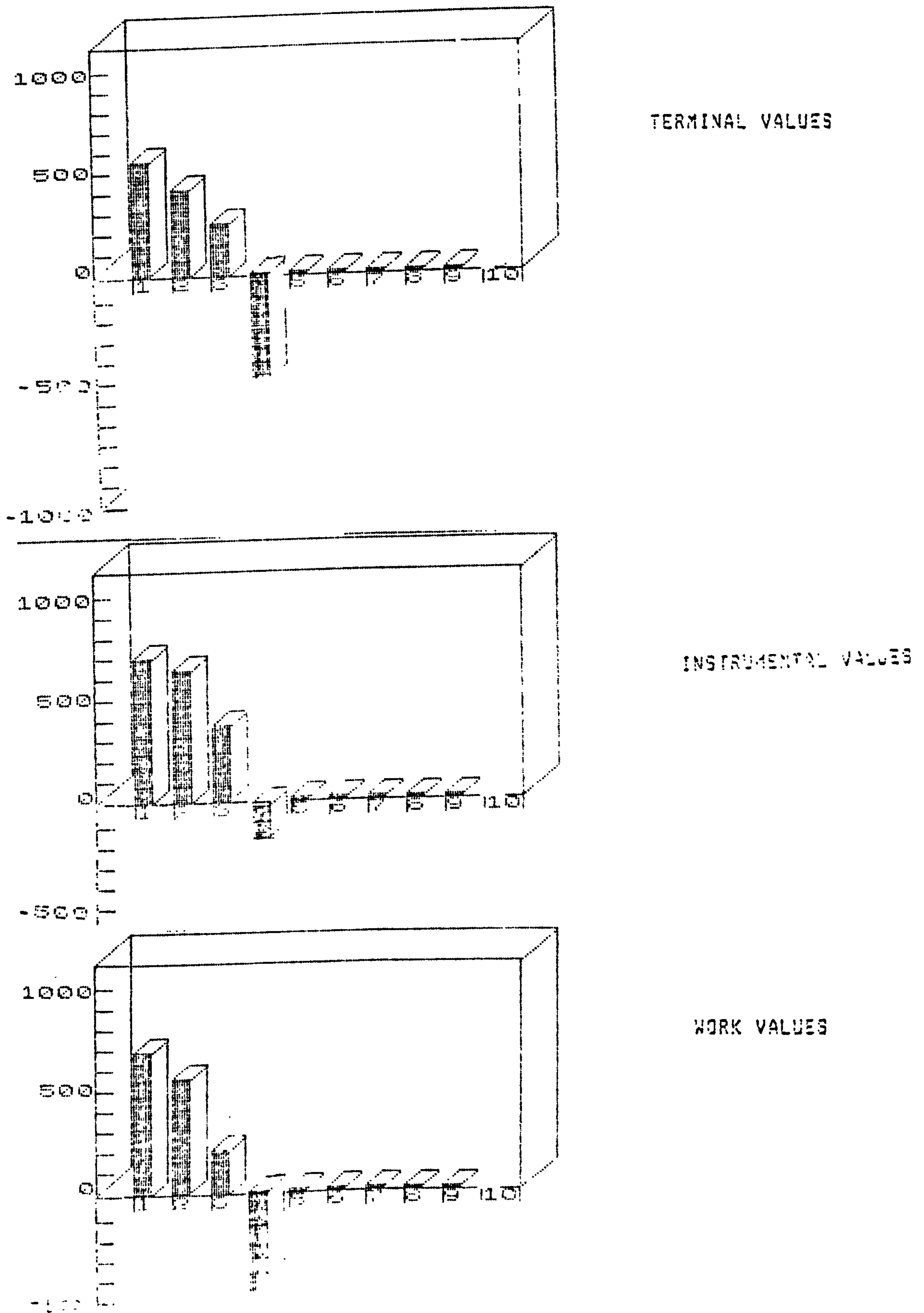
RESULTS

Table 6.1 presents the value attainment (SIV) scores for each subject, for each set of values, for each occupation. The occupations have been named: Preference, Choice, Possible Entry, Dislike. We can see from Table 6.1 that there is a tendency for value attainment (SIV) scores to decrease as we move from "Preference" to "Dislike". Fig 6.1 presents mean scores for each of the four nominated occupational categories. The decreasing tendency is represented graphically. The differences were not tested for statistical significance because of the small sample, but we can safely conclude that the first hypothesis (i.e. that the most preferred occupation will provide higher degree of value attainment) showed indications of being supported by the

Table 6.1 Anticipated Value Attainment Under Four Nominated Occupations.

| Subj. | Values | Prefer. | Choice | Poss.Entry | Dislike |
|-------|---------|---------|--------|------------|---------|
| 1 | Term.V. | 550 . | 281 | 146 | -748 |
| | Inst.V. | 510 | 516 | -473 | -377 |
| | Work V. | 465 | 594 | -228 | -743 |
| 2 | Term.V. | 645 | 564 | 331 | -527 |
| | Inst.V. | 599 | 559 | 520 | -247 |
| | Work V. | 1085 | 967 | 607 | -153 |
| 3 | Term.V. | 532 | 446 | 282 | -110 |
| | Inst.V. | 961 | 526 | 26 | -198 |
| | Work V. | 818 | 178 | -110 | -150 |
| 4 | Term.V. | 832 | 722 | 428 | -703 |
| | Inst.V. | 1078 | 1112 | 995 | -174 |
| | Work V. | 790 | 720 | 235 | -596 |
| 5 | Term.V. | 630 | 630 | 551 | -862 |
| | Inst.V. | 1035 | 1036 | 956 | -184 |
| | Work V. | 961 | 965 | 848 | -812 |
| 6 | Term.V. | 227 | 74 | 65 | -297 |
| | Inst.V. | 288 | 189 | 155 | -325 |
| | Work V. | 361 | 173 | 201 | -561 |
| 7 | Term.V. | 453 | 200 | -68 | -296 |
| | Inst.V. | 414 | 530 | 366 | 417 |
| | Work V. | 336 | 284 | -85 | -279 |
| Means | | | | | |
| | Term.V | 552.7 | 416.7 | 247.8 | -506.1 |
| | Inst.V. | 697.8 | 638.2 | 363.5 | -155.4 |
| | Work V. | 688 | 554.4 | 209.7 | -470.5 |

Fig. 6.1. Anticipated Value Attainment Under Four Nominated Occupations.



data.

The "preference" scores, however, are not consistently higher than the "choice" scores (e.g. subjects 1 and 5 in Table 6.1), whereas the "choice" and "entry" scores are consistent, i.e. higher than the score in the next occupational category. And this is true for all the subjects for all three sets of values. One explanation that could be given for the inconsistency of the "preference" scores is that in the case of these particular subjects the distinction between preference and choice, the latter having a stronger element of attainability, was not always clear, as they did not have at that point in time any indication that after graduation they would be able to enter the occupations they mentioned as choices. Another explanation could be that as we move from preferences down to actual choices value attainment perceptions do not necessarily decrease, as people may hold more than one, equally desirable, goal. The most plausible explanation could be that some dissonance reduction process is taking place, similar to the one reported for actual choices (Vroom, 1966; Vroom and Deci, 1971) . In other words the second hypothesis (i.e. that there would be more value attainment in "preference" than in "choice") was not supported. But as 6 out of the seven cases gave support for the hypothesis in the case of terminal values, and 5 out of seven in the case of the work values, as opposed to 3 out of seven in the case of instrumental values, rejection of the hypothesis would be advisable only for the set of instrumental values.

"Dislikes" were consistently rated negatively (with the exception of Subj. No 7, whose "dislike" score was higher than

the "choice" score on instrumental values) and this could be taken as an indication that the third hypothesis (i.e. that perceived value attainment in a disliked occupation would tend to take the form of value deprivation) was supported by the data.

In general, in terms of the absolute magnitude of the scores Terminal Values would predict six out of seven sets of ranked occupations, Instrumental Values three out of seven, and Work Values five out of seven.

The conclusion from this pilot study, which aimed at testing the motivational model in conjunction with values, was that the model seemed to work but a further refinement of the design was needed. Refinement was also needed for the purpose of simplicity as ranking, rating, indicating instrumentalities for three sets of values for four different occupations proved to be a rather tedious task.

Thus, it was decided that the instrumental value set would be dropped, because it gave rather poor predictions, and for an additional reason: it confused the subjects as to whether they should respond in terms of what behaviour (e.g. polite, responsible etc.) they were expected to show in the occupation being rated, or in terms of what behaviour they perceived themselves to show if they entered that occupation.

In addition, it was decided that five terminal values would be dropped (*Inner Harmony, A World at Peace, National Security, Salvation, and Mature Love*) because the subjects had

difficulties in relating them to occupations.

Finally, from the discussions with the subjects a need was felt for some additional work values. Thus, three more items were added to the work values list: *Advancement*, *Make Acquaintances* and *Opportunity to Travel*.

6.2 The second pilot study

The second pilot study was conducted in Greece and its main purposes were:

- a) To examine whether the expectancy model would work with a sample of secondary education pupils similar to the one that would be employed in the final study. It was decided that pupils of over 16 years of age should be examined, because there is evidence that stability of the value system is reached towards the end of 6 year secondary education (Wijting et al. 1978; Dipboye and Anderson, 1959; and with some reservations Gribbons and Lohness, 1965;
- b) To try out the structured interview before administering it.

The sample consisted of 8 secondary education pupils (ages 16 1/2 to 17 1/2) all male.

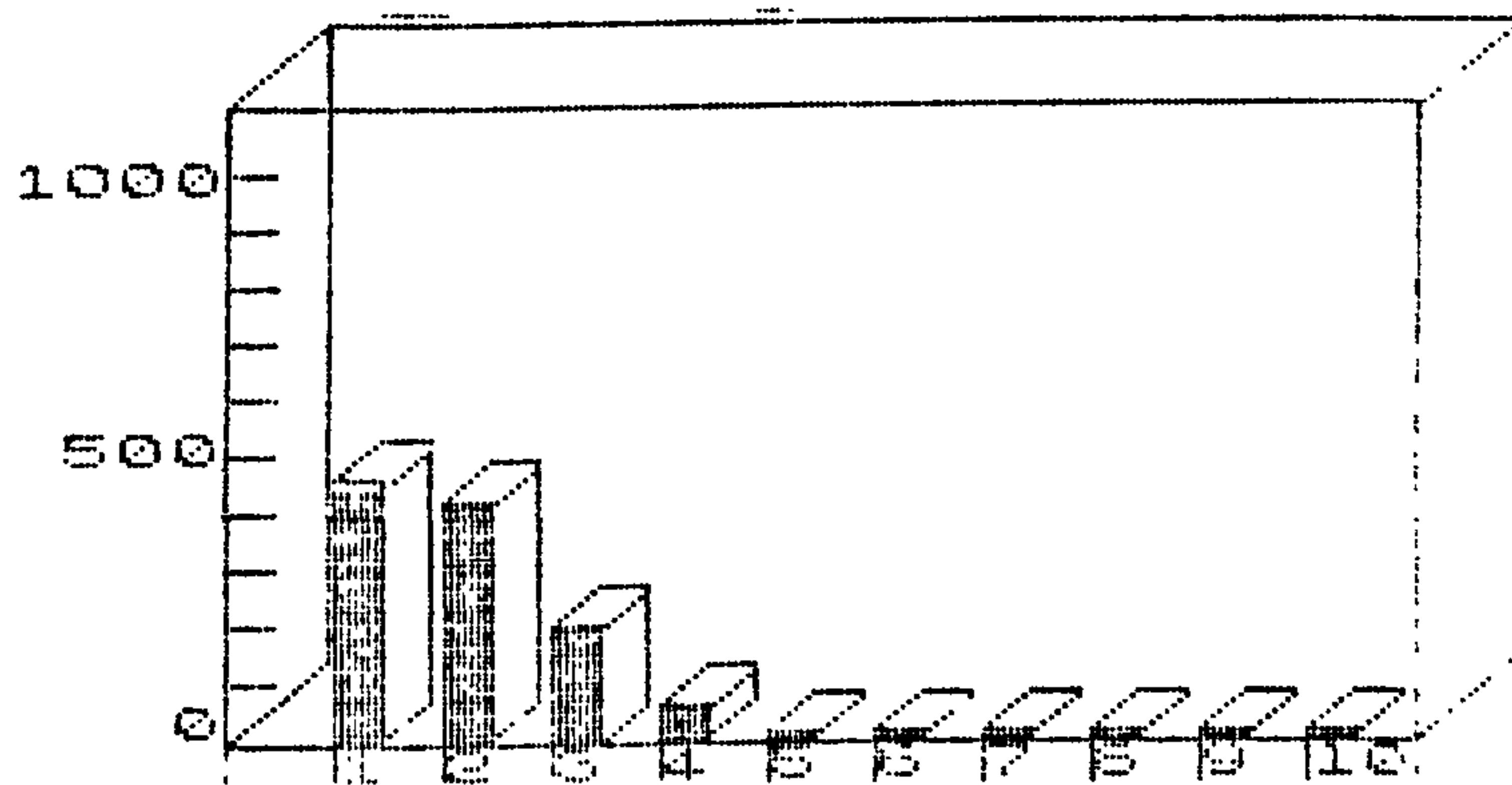
This time the Preference - Choice - Possible Entry - Dislike design was not always strictly adhered to, because the particularities of the Greek educational system would influence some of the responses to be presented as preferences or choices, while they would in fact be the end - products of the system of allocation to educational directions, as it will be described in the main study. Thus, the rated occupations were ranked in order of preference, a need that arose while conducting the interviews. The same method was also adopted in the final study.

In this study only the revised Terminal, and Work Values sets were employed, as the Instrumental Values set was abandoned for the reasons given in the previous section.

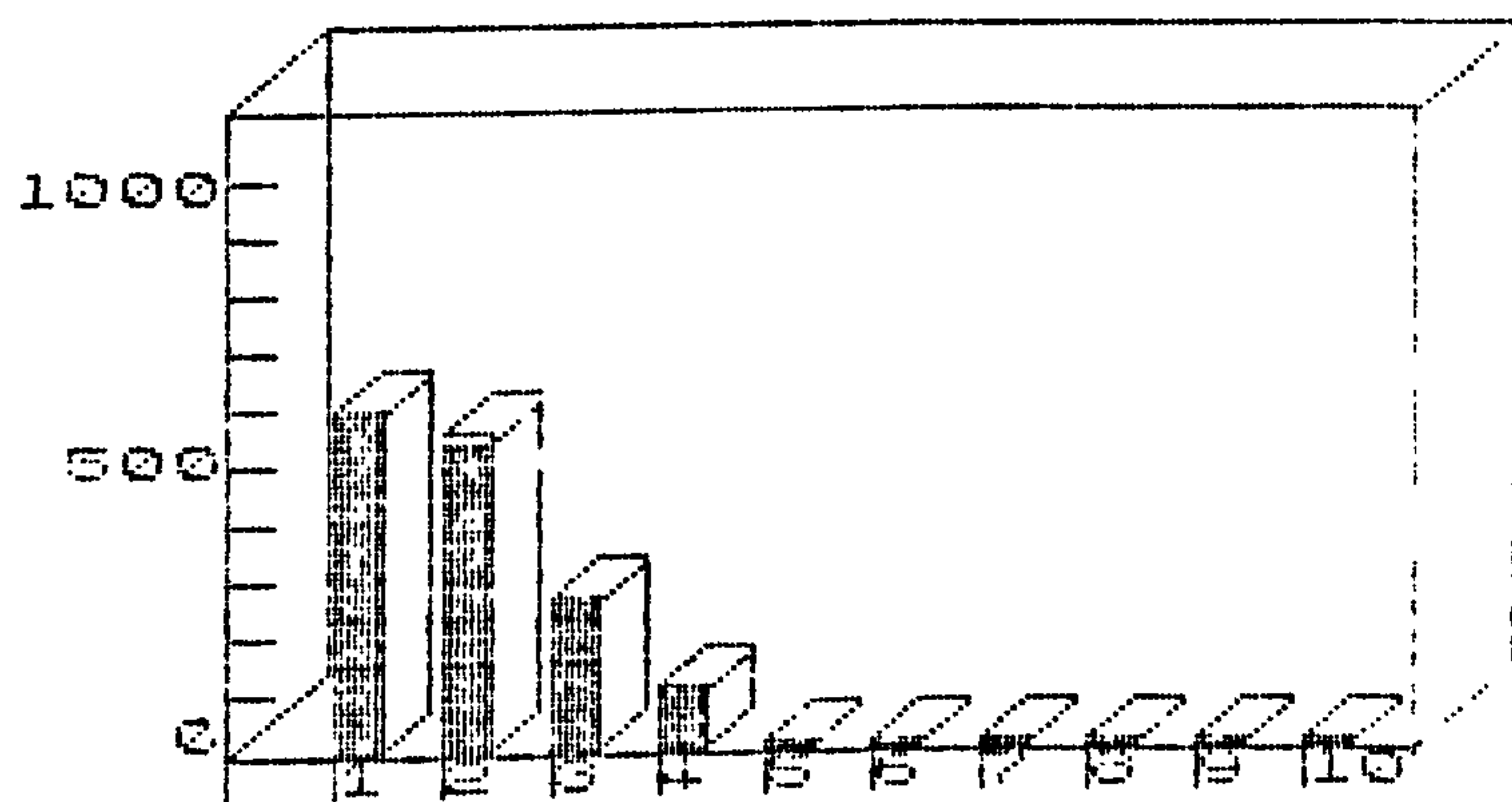
Table 6.2 Anticipated Value Attainment For 4 Ranked Occupations

| Subj. | Values | Occ.1 | Occ.2 | Occ.3 | Occ4 |
|-------|--------|-------|-------|-------|-------|
| 1 | LV | 559 | 665 | 75 | -26 |
| | WV | 863 | 642 | 514 | -60 |
| <hr/> | | | | | |
| 2 | LV | 734 | 471 | 355 | 547 |
| | WV | 431 | 582 | 160 | 702 |
| <hr/> | | | | | |
| 3 | LV | 205 | 223 | 21 | -285 |
| | WV | 443 | 364 | 17 | -500 |
| <hr/> | | | | | |
| 4 | LV | 383 | 370 | 123 | -9 |
| | WV | 689 | 651 | 333 | 317 |
| <hr/> | | | | | |
| 5 | LV | 420 | 329 | 356 | 301 |
| | WV | 623 | 383 | 407 | 313 |
| <hr/> | | | | | |
| 6 | LV | 432 | 269 | -184 | -600 |
| | WV | 515 | 364 | -202 | -901 |
| <hr/> | | | | | |
| 7 | LV | 298 | 435 | 357 | -13 |
| | WV | 476 | 686 | 568 | 310 |
| <hr/> | | | | | |
| 8 | LV | 532 | 519 | 488 | 510 |
| | WV | 681 | 692 | 319 | 656 |
| <hr/> | | | | | |
| MEANS | LV | 445.3 | 410.1 | 198.8 | 53.1 |
| | WV | 590.1 | 545.5 | 264.5 | 104.6 |

Fig. 6.2: Anticipated Value Attainment for 4 Ranked Occupations.



LIFE VALUES



WORK VALUES

Table 6.2 presents anticipated value attainment for the four ranked occupations. The model this time fared worse than in the previous case. The Life Values set predicted the ranked order of 3 of the 8 sets of ranked occupations, and the Work Values set 4 out of 8. A detailed study of the interview protocols showed that these inconsistencies that appeared between the two first preferences were due to reality factors intervening (parental pressures against first choice, no chances of getting the required marks for entering the relevant course of study etc.) and the resulting dissonance reduction processes. In our small sample it was evident that in some of the cases a compromise strategy (similar to the "minimax" strategy described by Sherlock and Cohen, 1966) was taking place. Nevertheless, the evidence from both pilot studies suggested that our main hypothesis, that value attainment is at least perceived, if not sought, in the choice of an occupation, could still be tentatively held for the final study and it was decided that the same design would be employed in the final study but additional care would be taken to have the subjects, as far as possible, rank occupations more carefully and with deeper thought, before they were asked to proceed to the rating of the instrumentalities. Thus, an effort would be made to rule out imprecise rank ordering of the preferred occupations as the cause of inconsistencies.

The other objective of the second pilot study was to try out the structured interview (see Appendix). The interview aimed at obtaining responses to the following topics: General attitudes to work (importance of work in life, work as an end or

a means), work or career involvement, life values and parental life values, content motivation, work values (outcomes sought or avoided in work). Some of the measures (e.g work or life values) were independent from similar measures obtained through the rank ordering of values.

This was done in two group interviews and 8 individual interviews. These interviews helped in the final formation and wording of the interview items. What was observed though, was that open ended questions on attitudes to work elicited a variety of answers that could not meaningfully be reduced to a limited number of attitude categories, thus it was decided that an attitude measure should be added to the final study and as such the Work Quiz was employed.

During the interviews pupils were asked to give perceived similarities between own and parental values. The method was not satisfactory as concerns the validity of the similarities reported, that is why it was decided that in the final study a direct measure of parental values should be obtained.

7. Conducting the Final Study

7.1 Instruments

The instruments used in this research were: The Work Quiz for the measurement of work salience or "the meanings of work", a revised version of the terminal values set of the Rokeach Value Survey, an adaptation of Super's Work Values Inventory, and a structured interview.

7.2 The Work Quiz

We referred to the Work Quiz earlier. As previously stated, no particular assumptions were made about it as to what dimensions it was expected to give. In view of the lack of any previous research of a similar nature in Greece, where the study was to be conducted, it was assumed that the WQ items would be suitable for our sample and thus it was left to the results of the analysis to provide any dimensions that would describe our sample. It was hoped that if any clear-cut dimensions appeared they would be examined and analysed in conjunction with other parts of the research, and in particular values, and thus the correlates or determinants of the different attitudes to work that would appear in our sample, would be further investigated.

More specifically, as values are assumed to be the determinants of attitudes (Rokeach, 1973), it was hoped that attitude measurements would be related to value measurements and possibly a causal link could be established. The WQ was chosen mainly in terms of the relevance of its content to secondary education

pupils. As it was pointed out earlier, there was not sufficient evidence regarding its psychometric power but it was hoped that it might give better results if tried with a different sample, because its assumptions about the meanings of work to young people were felt to describe what one might expect to find with a sample similar to ours. It can be said at the outset that it did not manage to give clear-cut dimensions but it gave some interesting indications about our sample's work attitudes. Unfortunately, as it has been mentioned, the Work Quiz had not been tested in a pilot study. Better results might have been obtained, if certain adaptations had been made.

All 33 WQ items were given to the subjects (see Appendix). The instrument had previously been translated and mimeographed. At first there was a short introduction: "In the following section you will find some thoughts concerning work. What is asked of you is to say whether you agree or disagree with each of the statements that follow. Remember that there are no correct or wrong, good or bad answers. What counts is your own opinion. Next to each statement you will put a number: 1 or 2 or 3 etc., according to the following scale: 1 = I agree completely; 2 = I agree; 3 = I can't decide; 4 = I disagree; 5 = I disagree completely. Then the 33 items were presented, with space provided on the right hand side for the ratings.

In the subsequent analyses a three point scale was adopted (1 for agreement, 2 for neutral, and 3 for disagreement) as suggested by the author, so that individual differences in agree - disagree ratings would be partialled out.

7.3 Terminal Life Values

Only 13 of the 18 values in Rokeach's set of terminal values were employed in this research. The whole "instrumental" values set, and five values of the terminal set were left out, because there were indications from the pilot studies, as we said earlier, that they could not be easily related to occupations, as was asked of the subjects.

The 13 values were printed on paper of visiting card size, with their defining phrases, and were given to the subjects to be placed in ranking order. The values had been numbered according to their alphabetical order in Greek. The subjects were asked to report the rank order of the numbers on the cards representing the value items. This method has one advantage and one disadvantage, if it is to be compared with Rokeach's "gummed labels" method. The advantage is that a deck of cards can be arranged, and re-arranged, more easily than sticky labels. The disadvantage is that there are bound to be some mistakes in copying the numbers representing the values from the ranked deck onto a piece of paper - and there were a few mistakes of this nature.

The list of the 13 Terminal Life Values presented to the subjects was the following (the numbers denote alphabetical order in Greek):

1. A sense of accomplishment
(lasting contribution)
2. A comfortable life

(a prosperous life)

3. Self - respect

(self - esteem)

4. Freedom

(independence, free choice)

5. Happiness

(contentedness)

6. Pleasure

(an enjoyable, leisurely life)

7. Equality

(brotherhood, equal opportunity for all)

8. Social recognition

(respect, admiration)

9. Family security

(taking care of loved ones)

10. A world of beauty

(beauty of nature and the arts)

11. True friendship

(close companionship)

12. Wisdom

(a mature understanding of life)

13. An Exciting Life

(a stimulating, active life)

What must be pointed out is that any translation always raises the problem of the semantic meaning of the word chosen to represent a concept. Precise translation is not always possible as the semantic level may differ or even the use or frequency of a particular word may vary from culture to culture. In our case precision was sought, and this was in some cases rather detrimental, as it was found while conducting the research: not all words denoting values meant the same things to all subjects.

Of course this has been explained by Rokeach, when he says that the relative position of a value within a value system denotes the meaning appointed to it. In our case it was felt that in some cases other words would have been more suitable, but again, these words would normally be represented in English by different words from the ones used by Rokeach and then the question of equivalence of the instruments would be raised.

7.4 Work Values

More liberty was taken in adapting the names of the value scales of the WVI. In this research only the names of the 15 scales of the WVI were used. The WVI does not make much attempt at disguising the values it is testing. It could be argued that in such a case one item could be as good as three undisguised ones, but this was not the main consideration in deciding to adopt a Rokeach - like technique (rank ordering) in scoring the work values. There was some evidence that rank ordering of the WVI gave similar, if not better, results. Young (1973) transformed a British - adapted version of the WVI by Carruthers (1968) into single value names which subjects were asked to rank order. The transformation, based on the content of the three items of the WVI intended to measure each value was as follows:

| SUPER | | CARRUTHERS / YOUNG |
|-----------------------------|---|--|
| 1. Intellectual Stimulation | - | Intellectual Stimulation |
| 2. Creativity | - | Scope for originality and invention |
| 3. Management | - | Authority over others |

- | | | |
|-------------------------|---|----------------------------------|
| 4.Achievement | - | A sense of accomplishment |
| 5.Surroundings | - | Good surroundings and facilities |
| 6.Supervisory relations | - | A good boss |
| 7.Way of life | - | An enjoyable life outside work |
| 8.Security | - | Security |
| 9.Associates | - | Friendship with workmates |
| 10.Aesthetic | - | Freedom for artistic expression |
| 11.Prestige | - | Distinction or eminence |
| 12.Independence | - | Independence |
| 13.Variety | - | Variety |
| 14.Economic returns | - | Good pay |
| 15.Altruism | - | Opportunity to help others |

Young's sample consisted of 20 fourth year psychology students and 10 trainees from an industrial training center in Scotland . The subjects were asked to do both the questionnaire (rating) and the rank ordering method. The procedure was repeated after a four weeks interval. A rank order correlation (Spearman rho), between the two similar methods in each of the two occasions, was computed. The median reliability for the rank ordering method was 0.80 and for the questionnaire method 0.77. This showed at least equal reliability in the two methods, since no statistically significant difference between the two methods was found. These results, and the transperence of the questionnaire method gave us some assurance that if we extended the Rokeach method to the measurement of the work values we would still get valid results.

We did not restrict ourselves, though, to Super's values. An extended review of the "outcomes" or "payoffs" employed in most studies employing expectancy-value models of motivation showed that most of them are described elsewhere as "work values" (Part II, Section 3.2). Some items appearing in such lists, that were also mentioned by the subjects in the second pilot study, were added to the list of work values. The final list presented to the subjects, again in the form of labels printed on visiting cards consisted of 18 items (again in Greek alphabetical order):

1. Status
2. Independence
3. Intellectual Stimulation
4. Opportunity for Originality - Invention
5. Opportunity for Advancement
6. Artistic Freedom and Expression
7. Authority
8. Success - Accomplishment
9. Opportunity to Travel
10. Opportunity to Help Others
11. Opportunity to Make Acquaintances
12. Pleasure Outside Work
13. Good Salary
14. Good Boss (Good Management)
15. Working Conditions (environment, comfort, working hours)
16. Variety
17. Secure, Stable, Job
18. Relations with Colleagues

The same method as in the case of the life values was employed for the work values and the same things could be said about the semantic meanings of the labels used. In this particular case one label that seems not to have cued the expected responses was "status" which cannot be translated precisely in Greek. The "prestige" aspect of it was more stressed in the greek word used in this research. In retrospect, it is felt that it should have been presented as "social position", which makes more sense in this context in Greek culture.

8. The Sample

The sample employed in this research was by no means large: 225 pupils gave usable answers to the survey and 70 of these participated in individual interviews. This sample though, represented two totally different school environments and thus it was assumed to represent two different realities within the Greek educational system. We shall have first a brief look at the Greek educational system at the time of the research, and then we shall describe some of the characteristics of our sample and the response rates to our research.

Obtaining permission to conduct the research was not an easy task. The entire research design was submitted to the Greek ministry of Education. It was then sent for final permission to the Centre for Educational Research, a body operating under the ministry of Education. The whole procedure took a good four months. One hindering stipulation, after the project was approved, was that the investigator was not supposed to take up teaching period time, which made the research difficult if not impossible, as the only time the pupils could be found at school was during teaching hours. Finally, it was thanks to the understanding of school heads, who allowed access to the classrooms, that this research was conducted. In one case, however, such permission was not granted and that particular school had to be abandoned.

8.1 Social, Economic, and Educational Parameters

The Greek economy has been mainly agricultural. In the post-

war years though, there was a massive movement to urban areas and thus in the Athens area, where the research was conducted, there lived around one third (31%) of the total population of Greece. At the same time agricultural occupations had declined from 40.5% in 1971 to 27.4% in 1981. Higher education graduates constituted 7.4% of the economically active population (4.9% in 1971) while another 3.4% had other post - secondary education qualifications, 17.9% secondary education certificates, and 54.8% primary education certificates. The remaining 16.5% had had some primary education or no education at all.

As we can see in Table 8.1 the occupational trends in the period 1971-1981 were towards a decline in the traditional farming/fishing sector and an inflation of white collar occupations. These occupational trends that had continued since the end of World War II had their repercussions on the orientations of the school population. Professor G.M.Sifakis of the University of Salonika in two articles in the daily newspaper TA NEA (29/31 Aug.1984) presents the problem as it has existed in Greece in the past few years : "...The function of the Greek University has been the award of titles of social success and vocational allocation to the members of a society that has been trying for 150 years to transform itself from agricultural-balkan to European-urban. In this transformation the acquisition of some higher education qualification has been a key factor. It secured access to the middle class, a position in the government administrative system, an occupation in the county capital or in the state capital. A doctor's, a lawyer's or a teacher's university degree was not simply a professional qualification but also a certificate for a successful career. The function of

Table 8.1 Occupational Distribution of the Greek Working Population According to the 1971 and the 1981 Censuses

| | 1981 | 1971 |
|----------------------------|------|------|
| | % | % |
| Scientists/Professionals | 9.3 | 5.6 |
| Administrative | 1.7 | 0.61 |
| Office Clerks | 9.4 | 7.54 |
| Merchants/Salesmen | 8.5 | 7.18 |
| Service Occupations | 7.8 | 7.38 |
| Farmers/Fishermen/Forestry | 27.4 | 40.5 |
| Workers/Craftsmen | 31.5 | 29.8 |

NOTE: Missing percentages are young people, unclassified occupations, and people who did not specify their occupation.

Source: Greek Statistical Service.

Table 8.2 Needs of the Greek Economy in Manpower and Expected Flow of Graduates for the Period 1975 - 1985

| Educational Institutions | Required graduates | Expected No. graduates | Ratio of graduates per Work position |
|--------------------------------|--------------------|------------------------|--------------------------------------|
| A. GRADUATES | 562,900 | 511,180 | 0.9 |
| I. University | 83,800 | 180,630 | 2.1 |
| Physics/Mathematics | 9,500 | 28,180 | 3.0 |
| Polytechnic | 9,600 | 18,900 | 1.9 |
| Medical | 12,200 | 16,220 | 1.3 |
| Economics/Law/Polit. Science | 44,000 | 82,130 | 1.8 |
| Humanities | 8,500 | 35,200 | 4.1 |
| II. Non University (General) | 21,100 | 16,480 | 0.8 |
| III. Non Univers. Techn./Voc | 58,000 | 44,070 | 0.7 |
| Engineers | 25,000 | 17,000 | 0.7 |
| Paramedical | 6,000 | 8,190 | 1.3 |
| Commercial/Social | 18,000 | 13,620 | 0.7 |
| Other | 9,000 | 5,260 | 0.6 |
| IV. Secondary Techn/Vocational | 400,000 | 270,000 | 0.7 |
| B. NON GRADUATES | 394,000 | 452,820 | 1.1 |
| C. TOTAL (A+B) | 957,000 | 964,000 | 1.0 |

Source: Glytsos N., Fakiolas, R.: *The Needs of the Economy in Manpower and the Educational System*, Athens, 1977.

the early Greek University was to award such degrees regardless of their scientific usefulness, and not to create real scientists. Not only has this hereditary scourge not been abolished yet, but still characterizes contemporary (Greek) university". According to some statistics (Newspaper TO VIMA, 17/7/1983) the ratio of university graduates to higher education (non university level) graduates in Greece is 4:1, when the same ratio is reported (by the same source) to be: UK, 1: 3.5; USA, 1: 5, Germany and USSR, 1: 3. These educational trends are very clearly shown in Table 8.2.

The proportion of secondary education pupils, at the ages 17-18, when compulsory education does not exist, is one of the highest in Europe and the proportion of higher education students to secondary education pupils is probably one of the highest in the world. This has traditionally been attributed to the particular cultural value that education has had among the Greeks since ancient times. A social economic analysis, however would probably attribute this phenomenon to the economic structure (commercial/services) that was established soon after the declaration of the Greek state in the early 19th century. This kind of economy required people with a fair amount of general - not specialized - education that would offer their services to the merchants and shipowners that constituted the ruling class of the new state and who, incidentally, blocked the way to industrialization (cf. Mouzelis, 1978; Tsoukalas, 1976). This recruitment to white collar occupations, clerks and salesmen mainly, was done at the expense of the rural areas which are under-represented in the above developments (Mylonas, 1982).

This social pressure for upward social mobility through higher education qualifications has resulted in the inability of any ruling party to introduce measures that would restrict the increasing demands for access to the university. Any measures of such nature would be unpopular, besides being fruitless, if they were not followed by a redistribution of social/occupational and economic privileges. The result is that governments do the opposite: they introduce measures that increase university intake or make access to the university easier, while the only measures that are subtly introduced are that candidates for the coveted four-year university courses and candidates for the rather disdained two-year or three-year technical courses are pooled together with the result that aspiring university students are channelled to, most of the times, unwanted technical or vocational orientations. Thus, without stifling aspirations and hopes the state has been trying to recruit young people to the kind of specialization required by the economy.

At the time that this research was conducted (1981) the system of admission to higher education was as follows. There were two kinds of candidates: pupils from "general" senior high schools (general lyceums) who belonged to two major "orientations"- Arts and Sciences - that differed from each other in the main but not in all the subjects, and pupils from "technical" education (technical lyceums) who had a different curriculum. These two categories of pupils were housed in separate school buildings with separate administration. These pupils after finishing the third grade of the three year "Gymnasium" (junior high school) had had to take a qualifying

examination for the "lyceum" (general or technical) of their choice. It was soon established in common opinion that technical schools were for the less able students, because they did not allow access to universities (cf. Cassotakis' (1979) research on the reasons why the general lyceum is preferred and the technical lyceum is considered suitable only for the less able pupils). The fact was that the technical lyceum pupil could not pursue a place in Arts faculties, but 10% of the places in some faculties of four year universities (known as AEI) were reserved for technical lyceum graduates. On the other hand, three year technical universities (known then as KATEE) were more easily accessible to technical lyceum graduates through examinations. In fact, they had some kind of priority over the general lyceum candidates in being admitted to these three year technical higher education institutions. General lyceum pupils, though, could pursue both four-year (AEI) and three-year (KATEE) higher education courses. Even though the odds were in favour of technical university (three-year) candidates, in 1976 for 7020 places in such institutions (KATEE), only 3348 specific and exclusive preferences were stated in the application forms (Cassotakis, 1979).

All students of both "technical and "general" lyceums participated in two national examinations, one at the end of their second year (of the three) in the lyceum and one at the end of the third and final year. This meant that for some of the subjects of this research -and for some of the general population of pupils in the final year of lyceum- the results of the examination in their second year of the lyceum had more or less predetermined their chances of securing a place in higher

education . Yet all pupils had to take the final national examination because it also constituted part of the secondary education qualification. Admission standards were not set in advance but university places were allocated in order of performance in the examinations until the predefined number of places, per institution and per faculty, had been filled. The result was that some pupils knew in advance that there was no hope whatsoever of their getting into a higher education institution; some others knew that if they kept up the previous year's performance they would probably secure a university position, and the majority did not know where they were standing, because it all depended on the passing mark which would be set for each faculty after the results were announced, and of course this pass/fail point for each school would be based on the general performance in relation to the number of the positions available. In other words what was "good" or "bad", except for the extreme cases was not known. One could only assume on the basis of the results of the previous year. The whole system was computerised and allocation of places was made by the computer.

Candidates had to fill in an application form before taking the examination in which, among other things they had to appoint an order of preference for admission to faculties and schools of Greek universities. Faculties and departments had been categorized into groups of supposedly similar subjects, starting from university departments (AEI) and ending with three year technical and vocational courses (KATEE). Each group of subjects could contain up to 50 different schools and departments of which candidates could include up to one half of the total number.

There were no restrictions on how the order of preference within the same group would be arranged but a candidate should try to combine a) real preference with b) his chances of being admitted. This should be done on the basis of past performance which constituted one half of his qualifying mark, and his expected performance in the coming examination. All kinds of speculations had to take place in preparing this list of preferences, the most important of which was what the passing mark had been for different departments the previous year. This served as an indication of what a pupil's target department could be in relation to his own past year's performance in the first half of the examination. It was not an uncommon phenomenon for whole cohorts of candidates to shift their preferences according to such speculations.

At the end of the school year 1980 - 1981, when our subjects were finishing school a total of 60,739 pupils participated in the national examinations competing for 22,206 places in institutions of higher education. About half of these positions were for the three-year Technical Institutions. The total number of people admitted was 22,259 (11,538 in universities (AEI), 2,420 in Teachers Colleges, and 8,301 in Technical Institutions -KATEE).

Since our sample came from both private and state schools it is appropriate to have a look at the relevant statistics. In the Athens area there were 14,692 pupils attending the last grade of the lyceum in state schools of which 23.66% were offered some higher education place, and 2858 pupils in private schools who had a success rate of 38.38%. Different statistics from 1971

show the following social composition of the students in higher education: Farmers and blue collar workers representing 70% of the population occupy 46% of the places. The remaining places are taken up by the sons of professionals and white collar workers.

8.2 The schools

The research was conducted in two totally different school environments in the same area in Athens. The first school was a selective private school run by an order of catholic monks and the second school was in fact a complex of state schools occupying a large area at a distance of about one mile from the private school.

The private school, called Leontion, a school for boys, has had a tradition of almost one century in Greek education. It consists of a Gymnasium and a Lyceum under seemingly different administrations, but in essence under the single administration of the catholic monks. The lyceum in which the study was conducted had approximately 500 pupils. The school is well known for order, discipline, method, and good results in the university examinations.

The complex of state schools, known as Grava, is a notorious example of bad school design and it is frequently mentioned in the Greek press as such. It includes schools of different level and content: elementary, gymnasium, lyceum, technical in an area of approximately 20 acres (74,000 sq. metres). A total of 14,000 pupils of all levels attend school there in neighbouring buildings that operate in morning/evening shifts. Individual school buildings have their own entrances and yards and the whole complex is surrounded by a common wall and a circular open corridor to which access is free and thus pupils are mixed with all kinds of young people, not at school, hanging around or driving motorcycles with deafening noise. There is always a mob

of young people going to school or leaving it, and any kind of supervision is impossible, as teachers cannot possibly know which of the pupils belong to their school. Of the four lyceums visited, three checked access into the school yard, but this did not prevent some of the pupils from climbing in and out of the school. It comes as no surprise that all kinds of deviant behaviour have been reported in the daily press about this school complex.

At the time of the research, state education was supposed to be coeducational, a measure that had recently been introduced but the classes we visited were boys' only, because they had started as such before the system was introduced and they had remained so. There were separate girls' classes as well in the same schools, while all the new classes were coeducational. The private school had not conformed with the system and it was still a boys' school.

The two schools were drawing their population from the same area in Athens, a middle class area, but the state school also drew from a minor area of rather working class character, while the private school transported pupils from other areas, some of the same character, others of distinctly upper class character. In general, as it will be reported later, the social class characteristics of the two schools were significantly different.

8.3 Response Rates, Educational Ability, and Social Composition of the Sample.

From the 300 questionnaires distributed in both schools 218 (75%) were returned completed, not all of them usable in all sections, 106 from the private school, and 112 from the state school complex. Of these 37 questionnaires (17%) were anonymous. Parental responses were lower: 98 mothers (45%) and 79 fathers (36%). The table that follows shows response rates of pupils, mothers and fathers, but as we have already mentioned not all filled questionnaires were usable in all their sections. Thus, the actual number of respondents was smaller in some parts of this research, as it will be shown in the different statistics that will be presented in the following sections.

| Response Rates: | | Distributed | | Collected | | | | |
|-----------------|-----|-------------|----|-----------|----|----------|---------|---------|
| | | | | | | Pupils % | Moth. % | Fath. % |
| Private School | 143 | 106 | 74 | 67 | 47 | 53 | 37 | |
| State School | 156 | 112 | 72 | 31 | 20 | 26 | 17 | |

Of the 80 pupils asked for an interview 4 refused downright and 6 failed to show up. Of the 70 interviews that were conducted 5 were not usable as a whole because either the pupils had no ideas at all, or refused to talk about occupations, or would not cooperate and would try to make the conversation stray. Thus, the number of respondents again varies in some parts of the study connected with the interviews, depending on whether the responses obtained were usable or not.

Of the people interviewed 20 were following the Arts

orientation, 39 the Sciences one and 8 were attending the technical school. These Technical school pupils belonged to the state school, the others were equally distributed between the two schools.

The two groups of pupils did not differ significantly in terms of ability, although average marks were higher in the private school. In terms of the previous year's final marks (one half of the required mark for admittance to Higher Education), and in terms of the previous year's Higher Education admittance examination, the pupils were classified in two groups: those that would most probably gain entrance to some higher institution and those that would not:

| | Leontion (private) | Grava (state) |
|------|-----------------------|------------------|
| Fail | 18 | 17 |
| Pass | 20 | 12 |

and according to their orientations:

| | Arts | Sciences | Technical |
|------|------|----------|-----------|
| Fail | 9 | 22 | 4 |
| Pass | 11 | 17 | 4 |

The social class of the pupils was classified in terms of their fathers' occupations, according to the system employed by Lambiris - Dimakis (1974) in her research on Greek University students. She employed four classes (farmer, working, middle, upper). It is the only systematic and documented classification

of the Greek social stratification system that we managed to locate in the relevant Greek literature.

In terms of social class composition the two school environments presented the following picture:

| | Leontion | Grava |
|---------------|-----------|---------|
| | (private) | (state) |
| Farmer | - | 1 |
| Working Class | 2 | 10 |
| Middle Class | 27 | 21 |
| Upper Class | 9 | - |

The differences are significant (chi square 9.71 DF 1 p.0.01), if we distinguish two categories Lower (Working-Farmer) and Upper. It is obvious that the private school draws from higher socioeconomic levels. If we take father's education as the criterion we get a similar picture:

| | Leontion | Grava |
|-------------|-----------|---------|
| | (private) | (state) |
| University | 18 | 4 |
| High School | 14 | 12 |
| Elementary | 5 | 16 |

The difference is again significant (chi square 14.55 DF 2 p. 0.001).

Unfortunately, the investigator had not been allowed to include in his study items that would be considered personal

information and thus similar measures were not taken from the whole sample. We can assume though, that these differences that appeared in the interviewed sample must represent differences that existed in the total sample, because the interviewed sub - sample was randomly selected.

In addition, due to the small sample belonging to what could be categorized as lower class (11 usable interviews) class differences were not pursued any further in the analysis of the interview data. Whether some of the differences found between the two schools can be attributed to social class differences is open to question.

B.4 Pooling the Sample. Representativeness of the Sample.

This study was designed to examine solely boys' occupational choices because it was deemed, particularly within the culture in which it was to be conducted, that girls' choices would involve additional considerations that could only be examined in a separate study. That is why only boys' classes were visited.

The private school consisted only of male pupils, thus all the third year classes were visited. There were in total 143 pupils distributed in four classes. All the pupils were handed out questionnaires in subsequent visits. Of these pupils 106 (74%) returned completed questionnaires.

In the state school complex the investigator visited two of the three "general" lyceums for which permission had been obtained (there was no cooperation in the third one) and the only existing "technical" lyceum. In the first "general" lyceum there were 5 third classes consisting of 141 pupils (including girls, who were the majority) and the investigator visited the two boys' classes consisting of 55 pupils (46 present on the day that the study was conducted). Thirty questionnaires were collected (65.2% of those present or 54.5% of the male pupils enrolled).

The second "general" lyceum had four third year classes (120 pupils in total) of which the two boys' classes were visited. Of the 60 male pupils enrolled in these two classes 58 were present

on the day that the study was conducted and 47 responded with completed questionnaires (81% of those present or 78.3% of the pupils enrolled).

The "technical" lyceum had various specialization courses of which two of the male specializations (electronics and industrial production) were visited. These two classes consisted of 62 pupils of whom 56 were present on the day of the study. Thirty five completed questionnaires were returned (62.5% of those present or 56.5% of the pupils enrolled in these two classes).

The resulting sample can be considered fairly representative of the male third-year pupil population of the two school complexes. Thus in the two state general lyceums of a total of 115 enrolled boys 77 responded to the questionnaire (67%). In the private school the response rate, as it was pointed out above, was 74%. It is not possible to estimate the representativeness of the technical pupils' sample, as the exact male population of the school is not known.

The only criteria used for visiting the particular classes were that they were boys classes. These classes had not been streamed in any other way and in the two general lyceums they included boys from the only two streams (Arts and Sciences). In the technical school the classes that were examined were streamed in terms of specialization. The other classes, the ones not visited (eg. graphic arts or office administration) were coeducational.

It must be admitted that, although every effort was made for the resulting sample to be representative of the population of the schools included in the study, a certain amount of self-selection must have crept into the pooling of the sample since the turnout was not unanimous. There was no way one could have forced all the pupils to respond to the questionnaire.

Applied research, like politics, is the art of the possible. A universal experience of researchers wishing to do research in schools is that the one requirement is that one takes over whole classes, not a selection of pupils from one or more classes. To have asked to extract the boys from the mixed-sex streams in the technical lyceum would have crossed this unwritten boundary. To that limited extent might any of the sampling bias be regarded as systematic.

9. Procedure

The investigator entered the class for which permission had been previously obtained. He briefly explained the purpose of his being there and then handed out the mimeographed leaflets consisting of three sheets of paper. On the first page there was the following introduction: " This questionnaire is a part of a research study that aims at examining how young people face work and what they expect of it. All the questions have an investigatory character and responses will be used only for an assessment of the attitudes of Greek young people towards work. Please give the following information that will serve only the following purposes: a) To give the investigator the opportunity to prove at any moment that the data were actually collected from you; b) To give the investigator the opportunity to contact you if additional data should be needed." The information asked was: name, class, school, home address, telephone number. It was stressed orally that they did not have to fill these if they did not want to. Finally, at the bottom of the above text the name, the address, and the telephone number of the investigator were given, along with the information that he was doing postgraduate research at the Department of Psychology of the University of Edinburgh.

The second sheet of paper was taken by the Work Quiz in the manner described above. The third sheet of paper referred to the measurement of values: " In the following section we are trying to make an assessment of "life" and "work" values so that we can identify some of the orientations of Greek young people and the extent to which they share the same values with older

generations or with their parents. You have been given two decks of printed cards. One deck contains what have been called "life values" and the other what have been called "work values". In general, these constitute things that people value and pursue in their lives or in their work. The cards have been numbered according to their alphabetical order because each item has the same value. What is asked of you is to place the cards of each deck separately in order of importance to you. Concerning the "life values" you will consider the order of importance that each value constitutes a guiding goal in your life. Concerning the "work values" you will think how important each one is for you in relation to work in general. What counts is what you yourself value and desire and not what is generally considered right or desirable. Once you have rank ordered the cards you will write in the space provided underneath the numbers of the cards as they appear in your rank ordering". Underneath, there was space properly marked (eg. life values, 1st (the most important), card No., etc.) for them to copy their rankings. An additional copy of the third sheet was also provided and they were asked to get their parents to do the same thing.

Oral explanations were given on how the ranking was to be done and how to transfer the resulting ranking order of the cards onto the space provided in the leaflet. They were also asked to try to get their parents to rank order the two value sets and they were also told that they should not try to make any comparisons between rankings and they should not let their rankings be influenced by the rankings of their parents and vice versa.

Finally, it was explained that some more specific results were needed so that the values and attitudes investigated by the leaflet could be supported by deeper insights into young people's minds concerning work and occupational choices, and to this effect some personal interviews were needed. It was explained to them what random sampling meant and why it could not be asked of them to just volunteer for an interview. Then, some numbers were drawn from a lottery specially prepared for this purpose and the numbers were identified with class roll numbers. These pupils were asked if they would mind having an interview with the investigator. Interview appointments were arranged on the spot.

Filled questionnaires and deck of cards were collected by class prefects and returned to the investigator in the days that followed.

The pupils who finally accepted to be interviewed were contacted the same or the following day. Each interview lasted between 1 and 1 1/2 hours. First, there was a general discussion and an effort was made to gain the subject's confidence by explaining again the whole purpose of the study, by assuring that there were no hidden measures and that the material collected would be used only for the investigator's research, and that it would not be disclosed to the school or any other authority.

The exact procedure varied. There was a conscious effort not to keep the same order in administering certain parts of the interview so that there would be no foreseeable response sets.

Thus, answering the interview questions, rating the values, assessing the instrumentalities etc. interchanged in order of presentation. Also, where possible, the ranking and rating of values interchanged, but in most cases the ranking preceded the rating. In very few cases, while rating the values the pupils expressed the need to consult their own ranking. They were allowed to do so but in general it can be said that ranking and rating the values consisted independent measures for most of the subjects.

As concerns the ranking of the occupations in terms of preference, it must be pointed out that additional care was taken for it to be done seriously and carefully. Even so, in very few cases the subjects were not totally sure as to the exact order of their preferences and they changed their initial rank ordering of the occupations in the course of the interview. This was more common with subjects who had no clear orientations or had low marks and thus they could not possibly make any plans or speculations about their immediate future. In these few cases the rank ordering of the occupations that was adopted was the one that emerged from the interviews.

10. The Research Design. Hypotheses

While designing this study it was felt that there were certain inherent limitations in administering a questionnaire and that there was a need for the questionnaire to be complemented with interviews for two main reasons:

a) Experience from the pilot studies indicated that studies involving long and rather tedious tasks like rating outcomes and instrumentalities for a number of different alternatives cannot be easily conducted through the administration of questionnaires. The interviewer's presence is important in that he/she can provide the required explanations, answer questions that may arise while the subjects are performing the task, and interchange the administration of the tasks so that order effects and response sets can be minimized.

b) It was believed that the outcomes/values connected with each occupation should be investigated deeper than permitted by the information provided by the instrumentality responses and the ranked/rated lists and thus the relevant open-ended questions concerning the outcomes of each rated occupation were included in the study. For the same reason it was believed that the value hierarchies of the subjects and their perceptions of how their values would be realized in their preferred occupations should be measured in more than one way so that they would respond to more than one stimulus. Thus three different measurements of the values of each interviewed subject were to be obtained: a ranked order, a rated list and the responses to the relevant questions

in the interview.

As is also pointed out elsewhere, this study was not meant to be just another test of the application of a motivational model but it also aimed at tapping some sociological aspects of the occupational choice process; it must be recognized though that the current study could not attain the proper status of sociological enquiry, on two main grounds: (a) the narrow spread of social differentiation within the sample selected, and (b) the size of the sample, which had to be kept small enough to be handled by a single researcher. Nevertheless, it was decided that the data acquired from the interviewed sample would be cross-referenced with similar data from the population from which the sample would be randomly drawn and to this end the value measurement of the entire school population was also included in the research design. All these data would be related to the attitude measurement provided by the Work Quiz both on the aggregate level and on the individual level.

Similarly, value measurements were required from all parents so that value differences between and among parents, pupils and schools would be investigated in relation to the social differences that were hypothesized to exist between schools as a result of the differences in their intake.

More specifically, the research design was based on the following general hypotheses:

- 1) There is an overall similarity between both the Life and the Work Values of the children and their parents due to the

transmission of the values through the socialization process.

2) Both the Life and the Work Values of young people are perceived to be realized in their preferred occupations, more so in the most preferred ones.

3) Attitudes to work in general will be directly connected with both the Life and the Work values.

4) Occupational considerations, preferences, choices and attitudes are taking place within a cognitive ecological environment set by both the socialization process and the general socio-economic structure. This cognitive environment is reflected in the value hierarchies and may differ across socio-economic strata.

5) The labour market and opportunity structures will bear on the perceptions and the attitudes of the young people who are entering the process of making occupational decisions. The impact of structural factors may differ, too, across socio-economic strata.

Hypothesis No 5 was taken to be both complementary and alternative to hypotheses 2-3: if these were confirmed, the extent that hypothesis 5 was also supported would be investigated. If they were rejected and hypothesis 5 was confirmed, it would serve as the alternative explanation, in other words the impact of the opportunity structure would be further examined (through the responses in the interview section). If hypothesis 5 was also rejected, the extent that

occupational choice could be examined in a totally adventitious context would be considered. In other words, the advantage of the interview design was that the research was not restricted to the examination of certain limited hypotheses (the ones examined by the motivational model and the value measurements) but it also allowed for any alternative explanations that might appear from the analysis of the interview section.

The motivational model and the interviews would provide an explanatory framework within which one could view how societal dictates or needs come to be translated into personal motivational patterns, i.e. how value hierarchies of groups (the macro level of analysis) were translated to individual decision-making and individual choices (the micro level of analysis). If such a design proved to be fruitful, it was assumed that indirectly it would address the main sociological question of how such processes could be examined across social groups, although it was believed that the sample of this research would not allow for such scope but, perhaps, only for speculations about the extrapolation of such a design to a direct examination of such issues in future studies. More specifically, as it was argued in an earlier part in this thesis (pp. 95-99), such a study was assumed to open the way for a future investigation of the extent to which such a motivational model could be used with groups of different social origin and of different educational background in order to test for differences in the motivational patterns and their constituents (e.g. salient values) across social groups.

PART III: RESULTS

1. Statistical Analysis of Value Similarities and Value Differences Between Schools, Pupils, and Parents.

1.1 Mapping Value Systems

The rankings obtained from pupils and parents were analysed in the following way. A mapping of the value system was obtained for each group by computing the median for each particular value. The median is a more suitable statistic for ordinal data. According to Rokeach (1973, p. 56) as frequency distributions of ranked data deviate so markedly from normality and from one another, the central tendency considered more appropriate is the median rather than the mean. This is in agreement with the suggestion by Blalock (1960, p. 58) that "whenever a distribution is highly skewed, i.e. whenever there are considerably more cases in one direction than the other, the median will generally be more appropriate than the mean".

The medians of individual values are in turn given a rank, within the group's value hierarchy, the composite rank order (Rokeach, 1973; Feather, 1975) which indicates the relative position of each value within the value system of the group being examined. When groups are being compared though, the composite rank order is not a safe indication as to existing differences, because two different medians may have obtained the same rank within the two value hierarchies compared. "The medians and the composite rank orders are therefore employed for convenience of description" (Feather, 1975; p. 26). In such

cases we must test for statistically significant differences.

1.2 Testing Differences Between Value Systems.

Differences between value systems are tested in different ways by Rokeach and Feather. Feather (1975, pp. 24-25) transforms the ranks to standard scores (z scores) and then performs analysis of variance. The transformation is made on the assumption that differences between ranks at the extremes would be more discriminable than differences between ranks in the middle of the scale. There is evidence that values ranked at the high and low ends of the scale change the least from test to retest (Rokeach, 1973; p. 39). Employing analysis of variance, according to Feather (1975), facilitates more complex types of comparison and results do not differ markedly from those obtained with nonparametric methods. Rokeach, on the other hand employs nonparametric tests of significance and in particular the median test and the Kruskal-Wallis test.

In the analysis of the ranked data of this research it was decided that Feather's design of transforming the ranked data to standard scores would not be employed, because there are some arguments against such transformations (cf. SPSS Manual, p. 187, footnote 1). Feather's main arguments in favour of employing parametric tests, and in particular the analysis of variance, were: a) that large N s tend to counterbalance the deviation from normality in the distribution of scores, something common with this kind of data, and b) that both parametric and nonparametric tests, in the case of large N s, provide highly consistent results. We thought that as it is admitted that in such cases

nonparametric tests can give equally valid results, we had better adhere to the traditional way of analysing ipsative, and highly skewed data, and at the same time concentrate our efforts on searching for a more powerful nonparametric alternative to the median test employed by Rokeach.

A careful comparison of nonparametric tests of the significance of differences between ranked data showed that a better alternative to the median test used by Rokeach would be the Mann-Whitney U Test (Siegel, 1956; Blalock, 1960). The U test is a powerful test in measuring differences in central tendency and more powerful than the median test in that it takes into account the variability of scores: *"The fact that the Mann-Whitney test is more powerful than the median test is not surprising, inasmuch as it considers the rank value of each observation rather than simply its location with respect to the combined median, and thus uses more information in the data (Siegel, 1956, p.123).*

While the median test computes a chi square for scores above and below the common median of the two groups, it does not take into account how much above or below the median they are. The Mann-Whitney test takes this into account, because it rank orders all scores and then the sum of the ranks of each group is computed. The power of the Mann-Whitney test over the median test is also pointed out by Hull and Nie (1979, SPSS Update, p. 57), Roscoe (1975, pp. 14 and 236), and Hinkle et al. (1979, p. 356) who find it to be the better alternative to the two-sample t-test for means. Another nonparametric test considered was the Kolmogorov-Smirnov, but it was ruled out because it is less

efficient than the Mann-Whitney with large samples (Siegel, 1956, p. 136)

Thus, all differences between pairs of groups in individual values were tested with the Mann-Whitney test at the 0.01 level of significance.

1.3 Measuring Similarities Between Value Systems.

Three more issues related to the statistical analysis of values and value systems have to do with describing: a) Value system similarity between two persons; b) Value system similarity in more than two persons; and c) value system similarity between two groups.

There seems to be an agreement between Rokeach and Feather in measuring value system similarity between two persons: they both use the Spearman Rho (or the Kendall tau, which is similar). The Spearman rho was employed in our analysis for the measurement of similarities in value systems between pairs of parents and children.

Rokeach indicates (p.37) that value system similarity between more than two persons can be measured by the coefficient of concordance (W) (Siegel, 1956, pp. 229-239). Feather does not seem to employ this statistic at all, possibly because as Rokeach points out there do not seem to exist methods for measuring significant differences between coefficients. In any case the coefficients (W) that Rokeach reports seem to be rather low (e.g. Jews 0.37, Catholics 0.28 etc for the terminal

values), something that also appeared in this study - the highest was 0.289, for mothers ranking the Life Values and the lowest was 0.200, for pupils ranking the work values. The significance of coefficients of concordance (W) reported in this study was tested by using the formula: $\chi^2 = k(N-1)W$ (Siegel, 1956, p. 236). The coefficients of concordance show within group agreement in ranking.

If the coefficient of concordance deflates any similarities in large groups, the statistic employed by Feather for the measurement of similarities between groups (Spearman rho or Kendall tau), tends to inflate them in a rather misleading way. Feather (1975, p. 26-27) says: "In some studies the average value systems for different groups or conditions as represented by the set of median rankings for the terminal values set or for the instrumental values have been compared for similarity by using the Spearman rank-order correlation statistic (rho) or the Kendall tau statistic or both, on the assumption that higher positive values of rho or tau indicate increasing degrees of similarity between average value systems. These correlations between sets of medians (average value systems) correspond to what have been called ecological correlations based upon aggregate data. The unit of comparison is not the person but the group and such correlations involving averages do not take account of individual differences and they differ markedly from average correlations computed at the individual level (pair by pair)... Yet these ecological correlations can indicate meaningful patterns of relationships at the group or aggregate level. In the present context...these correlations involving average value systems tend to be considerably higher than the

corresponding correlations calculated at the individual level, with the person as the unit of analysis".

Feather's system of computing Spearman rhos for average value systems will be employed here, too, with some reservations as to what the magnitude of the coefficients really reflects, along with the alternative methods of computing average correlations between groups, plotting a group profile, or reporting a coefficient of concordance. For both methods Spearman rhos are computed for each pair (e.g. father - son) of the two groups compared. Our main focus of analysis though, will be the testing of significant differences in the way described above.

1.4 Test - Retest Reliability.

Tables 1.1 and 1.2 present test - retest reliabilities (Pearson r) for individual Life and Work Values. Twenty nine of our subjects were asked to rank order the two sets of values approximately six months after the first ranking.

In the set of Life Values the highest test - retest correlation (Pearson r) was 0.709 for *Exciting Life*, and the lowest 0.095 for *True Friendship*. The median correlation was 0.494.

In the set of Work Values the highest test - retest correlation was 0.784 for *Authority* and the lowest 0.279 for *Working Conditions*. The median correlation was 0.589.

Reliability coefficients were rather low, but the lapsed

Table 1.1. Medians, Ranks of Medians (Composite Rank Orders), and Correlation Coefficients (Pearson r) for Individual Life Values. Six Months Interval. $N=29$

| | Old Median | Rank | New Median | Rank | r |
|-----------------------|------------|------|------------|------|----------|
| 1. Accomplishment | 7.125 | 7 | 5.417 | 5 | 0.554** |
| 2. A Comfortable Life | 8.667 | 10 | 8.375 | 9 | 0.459* |
| 3. Self Respect | 5.667 | 4 | 4.750 | 4 | 0.552** |
| 4. Freedom | 2.286 | 1 | 2.143 | 1 | 0.582*** |
| 5. Happiness | 6.000 | 6 | 3.437 | 2 | 0.369* |
| 6. Pleasure | 10.125 | 11 | 9.714 | 12 | 0.430* |
| 7. Equality | 5.750 | 5 | 4.250 | 3 | 0.695*** |
| 8. Social Recognition | 8.333 | 9 | 7.333 | 8 | 0.494** |
| 9. Family Security | 7.800 | 8 | 8.400 | 10 | 0.409* |
| 10. Beauty | 11.667 | 13 | 11.300 | 13 | 0.494** |
| 11. True Friendship | 5.600 | 3 | 5.750 | 6 | 0.095NS |
| 12. Wisdom | 5.333 | 2 | 7.000 | 7 | 0.631*** |
| 13. An Exciting Life | 10.250 | 12 | 9.125 | 11 | 0.709*** |

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

NB. Smaller medians denote higher rank.

Table 1.2. Medians, Ranks of Medians (Composite Rank Orders), and Correlation Coefficients (Pearson r) for Individual Work Values. Six Months Interval $N=29$

| | Old Median | Rank | New Median | Rank | r |
|--------------------------|------------|------|------------|------|----------|
| 1. Status | 13.250 | 16.5 | 14.125 | 16 | 0.441* |
| 2. Independence | 4.000 | 2 | 4.333 | 2 | 0.458* |
| 3. Intell. Stimulation | 9.000 | 9 | 6.750 | 4 | 0.649*** |
| 4. Original.- Invention | 8.750 | 8 | 10.000 | 9 | 0.766*** |
| 5. Advancement | 10.750 | 11 | 9.600 | 7 | 0.579*** |
| 6. Artistic Freedom | 16.125 | 18 | 14.667 | 17.5 | 0.732*** |
| 7. Authority | 13.000 | 15 | 14.667 | 17.5 | 0.784*** |
| 8. Success-Accomplish. | 3.437 | 1 | 4.000 | 1 | 0.600*** |
| 9. Opport. to Travel | 11.000 | 13.5 | 10.375 | 12 | 0.712*** |
| 10. Help Others | 13.250 | 16.5 | 11.375 | 15 | 0.721*** |
| 11. Make Acquaintances | 10.125 | 10 | 10.250 | 11 | 0.359NS |
| 12. Pleasure Out. Work | 10.917 | 12 | 10.000 | 9 | 0.450* |
| 13. Salary | 6.333 | 3 | 6.667 | 3 | 0.635*** |
| 14. Good Management | 11.000 | 13.5 | 11.000 | 14 | 0.349NS |
| 15. Working Conditions | 7.000 | 4 | 7.200 | 5 | 0.279NS |
| 16. Variety | 8.250 | 7 | 9.375 | 6 | 0.493** |
| 17. Secure, stable, job | 7.250 | 5 | 10.000 | 9 | 0.739*** |
| 18. Relations with Coll. | 8.200 | 6 | 10.600 | 13 | 0.351NS |

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

NB Smaller medians denote higher ranks

interval was rather long. Feather (1975) reports reliabilities ranging from 0.40 to 0.87 (Life Values, 5 week interval, N=77, median 0.63), while Rokeach reports a median of 0.76 (Life Values, 2-4 months interval, N=216). In the first case the sample was secondary education pupils, while Rokeach's sample consisted of college students.

The Spearman rank order correlation (ρ) between the value system of the twenty nine pupils as it emerged the first time, and their value system as it emerged after six months, was 0.819 $p. < 0.01$ for Life Values, and 0.866 $p. < 0.01$ for Work Values.

2. Similarities and Differences in the Value Systems of the Pupils.

Table 2.1 presents medians and composite rank orders for the 13 Life Values and Table 2.2 presents results for the 18 Work Values. The first four columns on the left of the Tables present results for the pupils of each school separately. The next two columns present the same statistics for the pooled sample of pupils, the two schools combined. Leontion is the private school and Grava is the state school complex. On the right hand side of the Table the value systems of the parents of the pupils of each school are also presented, so that comparisons can be made. The value systems of the parents are presented again in Tables 2.1a and 2.2a in chapter three.

2.1 Life Values.

As it can be seen (Table 2.1) the pupils of both schools agree in the ranking of the first two top values: *Freedom* and *Happiness*. These two values are also ranked first and second if the two samples are pooled together. Considerable agreement appears in the ranking of the value appearing third in the pooled sample: *True Friendship*. Private school pupils have given it a fourth position, while state school pupils place it third. The fourth, fifth and sixth ranks, in the pooled sample, are given to *Self-Respect*, *Equality*, and *Wisdom*, respectively. *Wisdom* receives a considerably lower rank by the state school sample and this appears to be the most pronounced difference between the two groups, and it is statistically

Table 2.1 Life Values : Medians and Composite Rank Orders for Sons, Mothers, and Fathers

| LIFE VALUES | PUPILS | | | | MOTHERS | | | | FATHERS | | | | | |
|------------------------------|------------------|------|-------|------|------------------|------|-------|------|------------------|------|-------|------|-------|----|
| | PRIVATE | | STATE | BOTH | PRIVATE | | STATE | BOTH | PRIVATE | | STATE | BOTH | | |
| | (Leont.) (Grava) | | | | (Leont.) (Grava) | | | | (Leont.) (Grava) | | | | | |
| | N=116 | N=99 | N=215 | | N=64 | N=22 | N=86 | | N=52 | N=17 | N=69 | | | |
| 1. A Sense of Accomplishment | 6.91 | 7 | 6.60 | 7 | 6.82 | 7 | 6.60 | 7 | 6.25 | 6 | 7.25 | 8 | 6.75 | 7 |
| 2. A Comfortable Life | 8.36 | 8 | 6.45 | 5 | 7.54 | 8 | 6.45 | 5 | 8.21 | 10 | 6.12 | 4 | 7.93 | 10 |
| 3. Self - Respect | 5.06 | 3 | 6.54 | 6 | 5.87 | 4 | 6.54 | 6 | 3.83 | 2 | 6.25 | 5 | 4.31 | 3 |
| 4. Freedom | 1.90 | 1 | 2.05 | 1 | 1.97 | 1 | 2.05 | 1 | 2.11 | 1 | 3.33 | 1 | 2.34 | 1 |
| 5. Happiness | 5.04 | 2 | 4.95 | 2 | 5.00 | 2 | 4.95 | 2 | 7.07 | 7 | 4.25 | 2 | 6.00 | 5 |
| 6. Pleasure | 9.78 | 11 | 9.00 | 12 | 9.47 | 12 | 9.00 | 12 | 11.76 | 13 | 10.25 | 12 | 11.52 | 13 |
| 7. Equality | 5.81 | 6 | 6.00 | 4 | 5.90 | 5 | 6.00 | 4 | 6.16 | 5 | 5.00 | 3 | 5.87 | 4 |
| 8. Social Recognition | 8.56 | 10 | 7.66 | 9 | 8.11 | 10 | 7.66 | 9 | 7.10 | 8 | 7.80 | 9 | 7.41 | 8 |
| 9. Family Security | 8.38 | 9 | 7.35 | 8 | 8.00 | 9 | 7.35 | 8 | 4.16 | 3 | 6.66 | 6 | 4.25 | 2 |
| 10. A World of Beauty | 10.75 | 13 | 11.18 | 13 | 10.98 | 13 | 11.18 | 13 | 11.30 | 12 | 10.00 | 11 | 11.25 | 12 |
| 11. True Friendship | 5.36 | 4 | 5.75 | 3 | 5.45 | 3 | 5.75 | 3 | 7.64 | 9 | 8.00 | 10 | 7.75 | 9 |
| 12. Wisdom | 5.71 | 5 | 8.68 | 11 | 6.71 | 6 | 8.68 | 11 | 6.00 | 4 | 6.75 | 7 | 6.18 | 6 |
| 13. An Exciting Life | 9.79 | 12 | 8.22 | 10 | 9.18 | 11 | 8.22 | 10 | 8.90 | 11 | 10.66 | 13 | 9.40 | 11 |

1. Figures shown are median rankings (MED.) and composite ranks orders (R), i.e. the rank of the median in the set of values. A smaller median signifies higher rank.

2. Values are presented in the order in the order in which they were presented to the subjects (Greek alphabetical order).

Table 2.2 Work Values : Medians and Composite Rank Orders for Sons, Mothers, and Fathers.

| WORK VALUES | PUPILS | | | | | | MOTHERS | | | | | | FATHERS | | | | | |
|-------------------------------|----------|------|-------|---------|-------|-------|----------|------|-------|---------|-------|------|----------|------|-------|---------|-------|------|
| | PRIVATE | | | STATE | | | PRIVATE | | | STATE | | | PRIVATE | | | STATE | | |
| | (Leont.) | | | (Grava) | | | (Leontm) | | | (Grava) | | | (Leont.) | | | (Grava) | | |
| | N=116 | N=99 | N=215 | N=116 | N=99 | N=215 | N=64 | N=22 | N=86 | N=64 | N=22 | N=86 | N=52 | N=17 | N=69 | N=52 | N=17 | N=69 |
| | MED. | R | MED. | R | MED. | R | MED. | R | MED. | R | MED. | R | MED. | R | MED. | R | MED. | R |
| 1. Status | 13.00 | 16 | 12.40 | 15 | 12.72 | 16 | 14.86 | 17 | 12.00 | 14 | 14.63 | 16 | 14.72 | 17 | 13.00 | 17 | 14.58 | 17 |
| 2. Independence | 3.63 | 2 | 5.61 | 4 | 4.46 | 2 | 8.68 | 10 | 8.50 | 8 | 8.63 | 9 | 5.30 | 3 | 6.75 | 6 | 5.70 | 3 |
| 3. Intell. Stimulation | 8.00 | 7 | 10.83 | 11 | 9.10 | 7 | 6.87 | 5 | 10.50 | 10.5 | 7.37 | 6 | 9.83 | 11 | 10.50 | 10.5 | 10.00 | 10 |
| 4. Originality-Invention | 6.42 | 3 | 7.30 | 6 | 6.79 | 5 | 6.44 | 4 | 8.00 | 7 | 6.70 | 4 | 8.50 | 6.5 | 5.50 | 4.5 | 7.16 | 5 |
| 5. Advancement | 11.91 | 15 | 8.60 | 7 | 10.40 | 10 | 9.50 | 11 | 7.00 | 5 | 8.93 | 10 | 9.10 | 9 | 10.50 | 10.5 | 9.50 | 8.5 |
| 6. Artistic Freedom | 14.80 | 17 | 13.16 | 17 | 14.02 | 17 | 14.00 | 16 | 15.08 | 17 | 14.65 | 17 | 15.00 | 18 | 14.50 | 18 | 14.90 | 18 |
| 7. Authority | 14.95 | 18 | 15.16 | 18 | 15.00 | 18 | 16.16 | 18 | 15.62 | 18 | 15.95 | 18 | 13.50 | 15 | 12.50 | 15.5 | 13.25 | 15 |
| 8. Success-Accomplishment | 3.09 | 1 | 4.40 | 1 | 3.63 | 1 | 3.18 | 2 | 3.66 | 1 | 3.30 | 1 | 3.10 | 1 | 3.50 | 1 | 3.30 | 1 |
| 9. Opportunity to Travel | 11.06 | 12 | 11.25 | 12 | 11.16 | 12 | 13.75 | 15 | 12.33 | 15 | 13.41 | 15 | 12.25 | 14 | 9.50 | 8 | 12.75 | 14 |
| 10. Help Others | 11.50 | 14 | 11.81 | 14 | 11.58 | 14 | 7.75 | 7 | 10.00 | 9 | 9.00 | 11 | 9.25 | 10 | 10.00 | 9 | 9.50 | 8.5 |
| 11. Make Acquaintances | 11.23 | 13 | 11.50 | 13 | 11.25 | 13 | 12.14 | 13 | 11.25 | 12 | 11.90 | 13 | 10.83 | 12 | 11.00 | 12 | 10.90 | 12 |
| 12. Pleasure Outside Work | 10.45 | 9 | 9.63 | 8 | 10.04 | 9 | 11.66 | 12 | 11.50 | 13 | 11.62 | 12 | 11.50 | 13 | 11.50 | 13.5 | 11.50 | 13 |
| 13. Salary | 6.45 | 4 | 5.21 | 3 | 6.00 | 3 | 8.55 | 9 | 5.50 | 3.5 | 7.66 | 7 | 6.83 | 4 | 5.00 | 3 | 6.50 | 4 |
| 14. Good Management | 10.50 | 10 | 10.57 | 10 | 10.54 | 11 | 7.16 | 6 | 7.16 | 6 | 7.16 | 5 | 8.50 | 6.5 | 11.50 | 13.5 | 10.10 | 11 |
| 15. Working Conditions | 7.53 | 5 | 6.30 | 5 | 6.93 | 6 | 5.42 | 3 | 5.50 | 3.5 | 5.44 | 3 | 7.50 | 5 | 5.50 | 4.5 | 7.50 | 6 |
| 16. Variety | 10.58 | 11 | 12.57 | 16 | 11.77 | 15 | 13.00 | 14 | 12.50 | 16 | 12.81 | 14 | 14.50 | 16 | 12.50 | 15.5 | 14.30 | 16 |
| 17. Secure, Stable, Job | 7.78 | 6 | 4.71 | 2 | 6.21 | 4 | 3.12 | 1 | 4.50 | 2 | 3.37 | 2 | 4.16 | 2 | 4.50 | 2 | 4.25 | 2 |
| 18. Relations with Colleagues | 9.42 | 8 | 10.00 | 9 | 9.66 | 8 | 8.20 | 8 | 10.50 | 10.5 | 8.44 | 8 | 8.83 | 8 | 8.50 | 7 | 8.78 | 7 |

1. Figures shown are median rankings (MED.) and composite rank orders (R), i.e. the rank of the median in the set of values. A smaller median signifies higher rank.

2. Values are presented in the order in which they were presented to the subjects (Greek alphabetical order).

significant (Mann-Whitney, $p < 0.001$).

If we look at the values receiving the bottom positions, in the pooled sample, we can see a considerable consensus in the two schools in ranking *A Sense of Accomplishment*, *Family Security*, *Social Recognition*, *An Exciting Life*, *Pleasure*, and *Beauty*. Only *A Comfortable Life* appears to be ranked higher by the state school pupils (5th as opposed to 8th by the private school pupils) but the difference is not statistically significant.

2.2 Work Values.

As it can be seen in Table 2.2 there is again a consensus in our sample of pupils in ranking *Success-Accomplishment* first. The second rank in the pooled sample of pupils is given to *Independence* which is ranked second by the private school pupils and fourth by the state school pupils. The difference though, is not statistically significant. Agreement between the two schools also appears in the ranking of *Salary*, which is third in the pooled sample, but a new disagreement seems to appear in the ranking of *Secure, stable Job* (4th in the pooled sample) which is given a top rank (2nd) by the state school pupils while it is ranked 6th by the private school pupils. This difference is not significant at the set level (0.01). A relative consensus appears in the ranking of the next two top values, *Originality-Invention* and *Working Conditions*. The only value in the Work Values set that differs significantly between the two school environments ($p < 0.01$) is *Advancement* which is ranked 15th by the private school pupils and 7th by the

state school pupils. There also appears a considerable agreement between the two schools in the remaining values that are placed at the bottom positions in the hierarchy. Thus, we can see that *Good Management, Opportunity to Travel, Make Acquaintances, Help others, Status, Artistic Freedom, Authority* receive identical ranks by the two samples of pupils. There is, however, a disagreement in *Variety* which is valued more by the private school pupils (11th as opposed to 16th) but the difference is not statistically significant.

2.3 Similarities and Differences Between the two Schools and Between Types of Curriculum.

As it has already been mentioned the only statistically significant difference between the two schools in the set of Life Values was in the ranking of Wisdom ($p < 0.001$), 5th in the value hierarchy of the private school pupils, and 11th in the hierarchy of the state school pupils. Between pupils attending different types of curriculum (Arts $N=52$, Sciences $N=115$, Technical $N=28$) *Wisdom* appears again to differ significantly between Sciences and Technical ($p < 0.01$), as it is ranked higher by the Sciences people.

The similarity coefficient between the Life Value systems of the two schools was 0.818 (Spearman rho, $p < 0.01$). The W coefficients of concordance were 0.212 for all pupils ranking the Life values, 0.250 for the private school pupils, 0.193 for the state school pupils, 0.201 for the Arts pupils, 0.229 for

the Sciences pupils, and 0.267 for the Technical pupils. All the coefficients are significant ($p < 0.001$).

In the Work Values set the only significant difference in the rankings of the pupils was in *Advancement* ($p < 0.001$) which was ranked 15th by the private school pupils and 7th by the state school pupils.

In the Work Values set the following statistically significant differences also appear between types of curriculum : Arts and Sciences differ significantly ($p < 0.01$) in *Status* ($p < 0.01$) ranked higher by the Arts pupils, *Originality - Invention* ($p < 0.01$) to which the Sciences pupils give higher ranks, and *Authority* ($p < 0.01$) to which Arts pupils seem to give more value. Arts and Technical differ significantly in the ranking of *Authority* ($p < 0.01$) which is also valued more by Arts pupils.

The similarity coefficient of the Work Values hierarchies of the two school environments is 0.857 (ρ $p < 0.01$). The corresponding coefficients of concordance (W) are 0.200 for all the pupils ranking the Work Values, 0.216 for the private school pupils, 0.203 for the state school pupils, 0.165 for the Arts pupils, 0.238 for the Sciences pupils and 0.286 for the Technical pupils. All coefficients are significant ($p < 0.001$).

If we examine significant differences between types of curriculum within each school we find no significant differences between values in either set in the state school. In the private school, however, Arts ($N=44$) and Sciences ($N=70$) differ

significantly in *Social Recognition* ($p < 0.01$) in the set of Life Values and in *Status* ($p < 0.001$), *Intellectual Stimulation* ($p < 0.01$), *Advancement* ($p < 0.01$), and *Authority* ($p < 0.001$). In the private school, in other words, the two major orientations in school curriculum, seem to differ significantly in *Social Recognition*, *Status*, *Advancement*, and *Authority*, valued more by the Arts pupils, and *Intellectual Stimulation* which is valued more by the Sciences people.

Summary: There was an overall agreement between the two schools in ranking both the Life Values and the Work Values. The similarity coefficients (rhos) were 0.818 for the Life Values and 0.857 for the Work Values. The only statistically significant differences were found in *Wisdom*, which was valued more by the private school pupils, and in *Advancement* which was valued more by the state school pupils. The top Life Values of our sample of pupils were: *Freedom*, *Happiness*, *True Friendship* and the bottom Life Values were: *An Exciting Life*, *Pleasure*, *A World of Beauty*. The top Work values were: *Success-Accomplishment*, *Independence*, *Salary*, *Secure*, *Stable job*, *Originality-Invention*, *Working Conditions*, while the bottom Work Values were: *Help Others*, *Variety*, *Status*, *Artistic Freedom*, *Authority*.

Between different school curricula the Sciences pupils valued *Wisdom* and *Originality-Invention* significantly more, while the Arts pupils *Status* and *Authority*. In the private school we also found that the Arts pupils valued *Social Recognition*, *Status*, *Advancement*, *Authority* significantly more than the Sciences pupils who, in turn, valued *Intellectual Stimulation*

significantly more than the Arts pupils. No such differences between types of curriculum were found in the state school.

The highest agreement in ranking the two sets of values was in the Technical pupils (W 0.267 for the Life Values and 0.286 for the Work Values).

3. Similarities and Differences in the Value Systems of the Parents

The value systems of the parents of the pupils in our sample are presented in Tables 2.1 and 2.2 of the previous chapter. The response rates for the private school were 37% for the fathers and 47% for the mothers. The corresponding percentages for the state school were much lower: 17% and 20%, respectively. We cannot claim that the sample of the parents who responded was not biased. Undoubtedly some kind of self-selection must have taken place since the response rates were rather low. We would expect parents more interested in their sons' education to have responded to their request to rank order the two sets of values, and conversely, pupils having better rapport with their parents to ask them to do the rank ordering. This may be the explanation for the higher response rate of the private school parents.

3.1 Life Values of Parents.

In the pooled sample of mothers (Table 2.1a) we can see that *Family Security*, *Self-Respect*, *Freedom*, *Happiness*, *Wisdom*, and *Equality* appear as the top values. There is a relative agreement between the two samples of mothers in ranking these values but if we pay more attention to the individual medians we shall see that we cannot speak of an absolute agreement. In any case, none of the differences in the medians in the top values are statistically significant.

At the bottom of the hierarchy we find *An Exciting Life*, *A Comfortable Life*, *A World of Beauty*, *Pleasure*. The agreement

Table 2.1a Life Values : Medians and Composite Rank Orders for
Mothers and Fathers

| LIFE VALUES | MOTHERS | | | | | | FATHERS | | | | | |
|------------------------------|----------------------------------|-----|-------------------------------|------|--------------|-----|----------------------------------|----|-------------------------------|----|--------------|----|
| | LEONT. <i>private</i> N=64 | | GRAVA <i>state</i> N=22 | | BOTH N=86 | | LEONT. <i>private</i> N=52 | | GRAVA <i>state</i> N=17 | | BOTH N=69 | |
| | MED. | R | MED. | R | MED. | R | MED. | R | MED. | R | MED. | R |
| 1. A Sense of Accomplishment | 7.00 | 8.5 | 7.83 | 8 | 7.27 | 9 | 6.25 | 6 | 7.25 | 8 | 6.75 | 7 |
| 2. A Comfortable Life | 9.70 | 11 | 8.00 | 9 | 9.35 | 11 | 8.21 | 10 | 6.12 | 4 | 7.93 | 10 |
| 3. Self - Respect | 3.07 | 2 | 4.83 | 5 | 3.92 | 2 | 3.83 | 2 | 6.25 | 5 | 4.31 | 3 |
| 4. Freedom | 4.64 | 3 | 2.50 | 1 | 4.16 | 3 | 2.11 | 1 | 3.33 | 1 | 2.34 | 1 |
| 5. Happiness | 6.70 | 7 | 4.10 | 3 | 5.83 | 4 | 7.07 | 7 | 4.25 | 2 | 6.00 | 5 |
| 6. Pleasure | 11.89 | 13 | 10.16 | 12 | 11.75 | 13 | 11.76 | 13 | 10.25 | 12 | 11.52 | 13 |
| 7. Equality | 6.10 | 6 | 3.50 | 2 | 5.87 | 5.5 | 6.16 | 5 | 5.00 | 3 | 5.87 | 4 |
| 8. Social Recognition | 7.00 | 8.5 | 6.50 | 7 | 6.90 | 8 | 7.10 | 8 | 7.80 | 9 | 7.41 | 8 |
| 9. Family Security | 2.50 | 1 | 4.50 | 4 | 2.80 | 1 | 4.16 | 3 | 6.66 | 6 | 4.25 | 2 |
| 10. A World of Beauty | 10.21 | 12 | 10.78 | 13 | 10.50 | 12 | 11.30 | 12 | 10.00 | 11 | 11.25 | 12 |
| 11. True Friendship | 6.00 | 5 | 8.50 | 10.5 | 6.50 | 7 | 7.64 | 9 | 8.00 | 10 | 7.75 | 9 |
| 12. Wisdom | 5.70 | 4 | 6.16 | 6 | 5.87 | 5.5 | 6.00 | 4 | 6.75 | 7 | 6.18 | 6 |
| 13. An Exciting Life | 8.83 | 10 | 8.50 | 10.5 | 8.75 | 10 | 8.90 | 11 | 10.66 | 13 | 9.40 | 11 |

1. Figures shown are median rankings (MED.) and composite ranks orders (R), i.e. the rank of the median in the set of values. A smaller median signifies higher rank.

2. Values are presented in the order in which they were presented to the subjects (Greek alphabetical order).

Table 2.2a Work Values : Medians and Composite Rank Orders for Mothers, and Fathers.

| WORK VALUES | MOTHERS | | | | | | FATHERS | | | | | |
|-------------------------------|---------------------------|----|------------------------|------|--------------|----|---------------------------|-----|------------------------|------|--------------|-----|
| | LEONT. private N=64 | | GRAVA State N=22 | | BOTH N=86 | | LEONT. private N=52 | | GRAVA state N=17 | | BOTH N=69 | |
| | MED. | R | MED. | R | MED. | R | MED. | R | MED. | R | MED. | R |
| 1. Status | 14.86 | 17 | 12.00 | 14 | 14.63 | 16 | 14.72 | 17 | 13.00 | 17 | 14.58 | 17 |
| 2. Independence | 8.68 | 10 | 8.50 | 8 | 8.63 | 9 | 5.30 | 3 | 6.75 | 6 | 5.70 | 3 |
| 3. Intell. Stimulation | 6.87 | 5 | 10.50 | 10.5 | 7.37 | 6 | 9.83 | 11 | 10.50 | 10.5 | 10.00 | 10 |
| 4. Originality-Invention | 6.44 | 4 | 8.00 | 7 | 6.70 | 4 | 8.50 | 6.5 | 5.50 | 4.5 | 7.16 | 5 |
| 5. Advancement | 9.50 | 11 | 7.00 | 5 | 8.93 | 10 | 9.10 | 9 | 10.50 | 10.5 | 9.50 | 8.5 |
| 6. Artistic Freedom | 14.00 | 16 | 15.08 | 17 | 14.65 | 17 | 15.00 | 18 | 14.50 | 18 | 14.90 | 18 |
| 7. Authority | 16.16 | 18 | 15.62 | 18 | 15.95 | 18 | 13.50 | 15 | 12.50 | 15.5 | 13.25 | 15 |
| 8. Success-Accomplishment | 3.18 | 2 | 3.66 | 1 | 3.30 | 1 | 3.10 | 1 | 3.50 | 1 | 3.30 | 1 |
| 9. Opportunity to Travel | 13.75 | 15 | 12.33 | 15 | 13.41 | 15 | 12.25 | 14 | 9.50 | 8 | 12.75 | 14 |
| 10. Help Others | 7.75 | 7 | 10.00 | 9 | 9.00 | 11 | 9.25 | 10 | 10.00 | 9 | 9.50 | 8.5 |
| 11. Make Acquaintances | 12.14 | 13 | 11.25 | 12 | 11.90 | 13 | 10.83 | 12 | 11.00 | 12 | 10.90 | 12 |
| 12. Pleasure Outside Work | 11.66 | 12 | 11.50 | 13 | 11.62 | 12 | 11.50 | 13 | 11.50 | 13.5 | 11.50 | 13 |
| 13. Salary | 8.55 | 9 | 5.50 | 3.5 | 7.66 | 7 | 6.83 | 4 | 5.00 | 3 | 6.50 | 4 |
| 14. Good Management | 7.16 | 6 | 7.16 | 6 | 7.16 | 5 | 8.50 | 6.5 | 11.50 | 13.5 | 10.10 | 11 |
| 15. Working Conditions | 5.42 | 3 | 5.50 | 3.5 | 5.44 | 3 | 7.50 | 5 | 5.50 | 4.5 | 7.50 | 6 |
| 16. Variety | 13.00 | 14 | 12.50 | 16 | 12.81 | 14 | 14.50 | 16 | 12.50 | 15.5 | 14.30 | 16 |
| 17. Secure, Stable, Job | 3.12 | 1 | 4.50 | 2 | 3.37 | 2 | 4.16 | 2 | 4.50 | 2 | 4.25 | 2 |
| 18. Relations with Colleagues | 8.20 | 8 | 10.50 | 10.5 | 8.44 | 8 | 8.83 | 8 | 8.50 | 7 | 8.78 | 7 |

1. Figures shown are median rankings (MED.) and composite rank orders (R), i.e. the rank of the median in the set of values. A smaller median signifies higher rank.

2. Values are presented in the order in which they were presented to the subjects (Greek alphabetical order).

here between the two samples appears to be greater, as the medians show us. The most pronounced differences between the two samples of mothers, if we look at the composite rank orders, appear to be in *Equality* and *Happiness*, which are valued more by the state school mothers, and *Family Security*, and *True Friendship*, which are valued more by the private school mothers. The only one of these differences that is significant at the 0.01 level is in *True Friendship*.

The value system similarity coefficient between the two groups of mothers is 0.789 (Spearman rho $p < 0.01$). The coefficient of concordance (W) is 0.243 for all mothers ranking the Life Values, 0.289 for the private school mothers and 0.203 for the state school mothers. All coefficients are significant ($p < 0.001$).

Despite the distinctly unequal samples, in the two groups of fathers, there seems to be some consensus in ranking *Freedom* as the top value, as it appears first in both the separate samples and the pooled sample. This agreement, though, does not extend to the other top values of the pooled sample of fathers. In general, there are no statistically significant differences between the two samples of fathers in ranking the Life Values, but with larger samples some of the existing trends might have appeared to be significantly different. The fathers of the private school pupils appear to value more *Freedom*, *Self-Respect*, *Family Security*, *Wisdom*, *Equality*, and *A Sense of Accomplishment*, while the fathers of the state school pupils appear to value more *Freedom*, *Happiness*, *Equality*, *A Comfortable Life*, *Self-Respect*, and *Family Security*. The two

values which seem to have the most pronounced differences, both in terms of the medians and the composite rank orders, are *Happiness*, and *A Comfortable Life*, which seem to be valued considerably more by the state school fathers. None of these differences, however, are significant at the appointed level.

At the bottom of the hierarchy, private school fathers place *An Exciting Life*, *Beauty*, and *Pleasure*, while the state school fathers also give lower priorities to the same values in a somewhat different order: *Beauty*, *Pleasure*, and *Exciting Life*, which shows greater agreement in the two groups in the values ranked low.

The coefficient of similarity between the two value systems of fathers is 0.696 (Spearman rho $p < 0.01$). The coefficient of concordance for all fathers ranking the Life Values was 0.236, for private school fathers 0.273, and for state school fathers 0.197. All the coefficients were significant ($p < 0.001$).

Summary: There was a relative agreement between the two samples of parents in ranking the Life Values. The agreement appeared to be greater in ranking the values that obtained low positions in their hierarchies. In general, the agreement was greater between the two samples of mothers (rho 0.789) than between the two samples of fathers.

The top Life Values of the pooled sample of mothers were: *Family Security*, *Self-Respect*, *Freedom*, *Happiness*. Their bottom values were: *An Exciting Life*, *A Comfortable Life*, *A World of Beauty*, *Pleasure*. The top Life Values of the pooled

sample of fathers were: *Freedom, Family Security, Self-Respect, Equality, Happiness*, while their bottom values were: *A Comfortable Life, An Exciting Life, A World of Beauty, Pleasure*. We can see an overall similarity between fathers and mothers ranking the Life Values.

There appeared to be some differences in the medians between the samples of same sexed parents from the two different schools but the only difference that was significant was between mothers ranking *True Friendship*, which was valued more by the private school mothers.

The highest agreement in ranking the life Values was in the private school mothers (W: 0.289).

3.2 Work Values of Parents

The Work Values hierarchy of the two groups of mothers are presented in Table 2.2a. It can be seen that there is a considerable agreement in the two groups in ranking the three most important values which are: *Success - Accomplishment*, *Secure, Stable Job*, and *Working Conditions*. The next four top values in each group are different however; the private school mothers place next *Originality - Invention*, *Intellectual Stimulation*, *Management*, and *Help Others*, while the state school mothers place *Salary*, *Working Conditions*, *Advancement*, and *Management* at the same ranks.

As concerns the values at the bottom of the hierarchy (ranks 14-18 in the pooled sample), the two groups of mothers rank *Variety*, *Opportunity to Travel*, *Status*, *Artistic Freedom*, *Authority* in relative agreement. The only items that present some differences in the medians are *Intellectual Stimulation* and *Status* which appear to be valued less, considerably so, the first by the private school mothers and the second by the state school mothers. The differences, though, are not statistically significant, nor are any other differences in the medians in the two groups of mothers.

The similarity coefficient between the two groups appears to be 0.857 ($\rho p < 0.01$). The coefficients of concordance are 0.289 for all mothers ranking the Work values, 0.320 for the private school mothers, and 0.246 for the state school mothers. All the coefficients are significant at the 0.001 level.

The value hierarchies of the two groups of fathers are similar at both the top and the bottom ends (and with the exception of *Management, Opportunity to Travel*, in the middle part, as well). Thus, both groups of fathers agree in placing at the top of their respective hierarchies: *Success-Accomplishment, Secure, Stable Job, Salary, Working Conditions* and, with some difference in the medians, *Independence* and *Originality-Invention*. *Good Management* also appears at the top of the value hierarchy of the private school fathers and much lower in the other group, but the difference is not statistically significant. The agreement in ranking the Work Values is also extended to the lower part of the hierarchy, as both groups value least *Authority, Variety, Status* and *Artistic Freedom*. The similarity coefficient between the two value systems is 0.897 (Spearman rho $p < 0.01$).

Table 3.3 presents similarity indices of the value systems between parents, and between parents and children. The similarity coefficient (Spearman rho) was computed in the way suggested by Feather (1975). The composite rank orders of the values in the value systems of the fathers and mothers as they appear in Tables 2.1a and 2.2a were correlated with the composite rank orders of the value systems of their sons (not of the whole sample of pupils) and with each other. These indices, however, as it was pointed out earlier, inflate similarities between value systems, as they do not take individual variations into account, and thus it would be advisable for these indices to be taken as mere indications of direction and relative magnitude. Another way of presenting such similarities is to compute a rank order correlation coefficient between the value

Table 3.3 Rank-order Correlations of the Median Rankings of Life and Work Values for Pupils and Parents of Private School (Leontion), State School (Grava), and Both Schools Combined.

| | Leontion | | | Grava | | | Both Schools | | |
|---|----------|-------|-------|--------|-------|-------|--------------|-------|-------|
| | Sons | Fath. | Moth. | Sons | Fath. | Moth. | Sons | Fath. | Moth. |
| S | | 0.752 | 0.779 | | 0.713 | 0.755 | | 0.747 | 0.841 |
| F | 0.821 | | 0.839 | 0.580* | | 0.818 | 0.802 | | 0.862 |
| M | 0.793 | 0.905 | | 0.643* | 0.857 | | 0.740 | 0.938 | |

Note: Work Values are above the diagonal and Life values below the diagonal of each matrix. All coefficients are significant at the 0.01 level except for two marked *, which are significant at the 0.05 level of significance.

Table 3.4 Statistically Significant Differences (Mann-Whitney) Between Sons and Parents ($p < 0.01$)

1. SONS-FATHERS *

Life Values: Pleasure (S), Family Security (F), True Friendship (S)

Work Values: Variety (S)

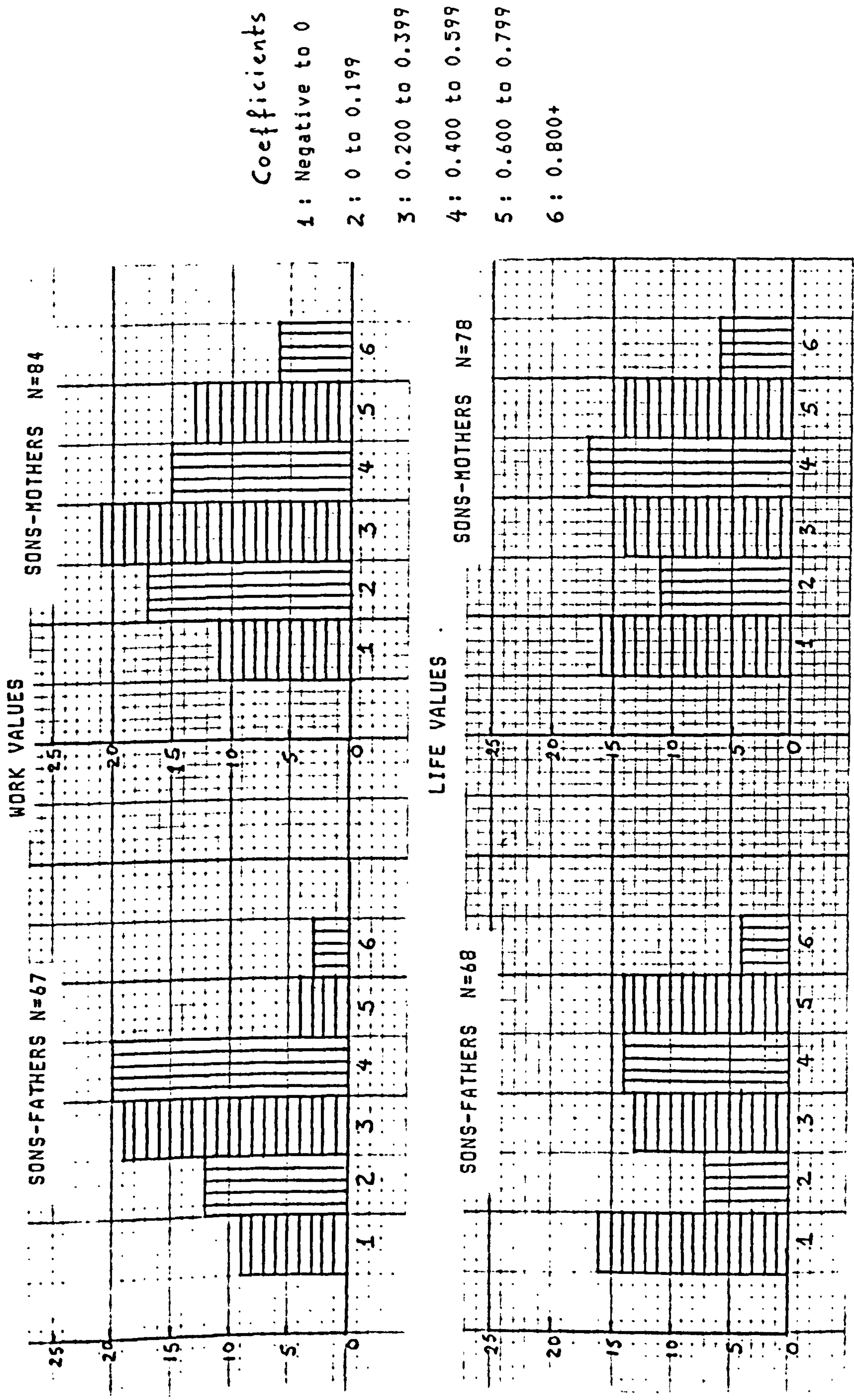
2. SONS-MOTHERS

Life Values: Freedom (S), Pleasure (S), Social Recognition (M), Family Security (M)

Work Values: Independence (S), Help Others (M), Management (M), Working Conditions (M), Secure, Stable Job (M)

Fig.3.1

FREQUENCY DISTRIBUTION OF SIMILARITY COEFFICIENTS (SPEARMAN RHO) BETWEEN SONS AND MOTHERS AND SONS AND FATHERS



hierarchy of each parent - child pair and then to plot the frequency distribution of the coefficients thus obtaining the similarity profile of the two groups. Fig. 3.1 presents the distribution of the similarity coefficients. Similarities are still obvious but they are not as high as they appeared to be when the previous method (similarity coefficients between value systems) was employed. The similarities presented in Table 3.3 must be considered in conjunction with Fig. 3.1.

A comparison of the value systems between parents of the two school environments showed that there is a statistically significant difference between mothers and fathers in *Family Security*, the mothers valuing it more. The only significant difference between similar parents (fathers or mothers) across schools was between mothers in *True Friendship*, which the private school mothers value more.

3.3 Significant Differences in the Value Systems Between Parents and Sons.

In Tables 2.1 and 2.2 we can see that both the medians and the composite rank orders in the value systems of pupils and parents present some marked differences. We tested the significance of these differences employing the Mann-Whitney test. In conducting the test we employed a sub-sample of "own sons", ie we compared the value systems of the parents with the value systems of their own sons, and not with those of the pooled sample of pupils, in order to remove any effects that the sample size might create.

The results are presented in Table 3.4. Next to each value label we place S or F or M in parentheses to indicate which group attributes a significantly higher rank to each individual value in the table.

Thus, in the case of the Life Values we can see that sons value *Pleasure*, *Beauty* and *True Friendship* more than their fathers and *Freedom*, *Beauty* and *Pleasure* more than their mothers. Both parents value *Family Security* more than their sons and in addition mothers value *Social Recognition* more than their sons.

In the case of the Work Values, sons value *Variety* more than their fathers and *Independence* more than their mothers. Mothers, on the other hand, value *Help Others*, *Secure*, *Stable Job*, *Management* and *Working Conditions* more than their sons. Consultation of Tables 2.1 and 2.2 will give us an approximation as to the differences in the medians.

In general we can say that the parents value security, social recognition, altruism, and working conditions more than their sons, who, in turn, value pleasure, friendship and independence more than their parents. These differences will be further discussed in chapter four.

3.4 Intercorrelations of Life/Work Values and Factor Analysis.

Before we proceed to a discussion of the results presented so far, i.e. similarities and differences in the value systems of our sample, we must first see how the Rokeach Value Survey has worked with our sample.

As can be seen from Table 3.5 *A Comfortable Life* presents the higher intercorrelations with other values, followed by *Equality*, *Pleasure*, and *Wisdom*. The highest intercorrelations are between *A Comfortable Life* and *Equality*(-0.540) and *A Comfortable Life* and *Pleasure*(0.520). *A Comfortable Life* is also negatively related with *Self-Respect*, *True Friendship*, and *Wisdom*. These intercorrelations show that in the case of our sample these 13 Life values could have been presented in fewer, more meaningful, patterns. Thus a Factor Analysis (SPSS-PA2, Varimax Rotation) gave a distinct pattern involving two factors (eigenvalues > 1.00) which account for 19% and 8.15% of the variance respectively. A third factor also tended to appear involving two values, *Beauty*, and negatively *Family Security* but its contribution to the variance was only 5.22% and its eigenvalue lower than the appointed level of significance (1.00). This factor though, is also presented here (Table 3.6) for purposes of description and comparison. In other words, from the responses of our sample we could conclude that there are some indications for the existence of different dimensions of values from the ones presented by Rokeach and adopted in this research.

Table 3.5 Correlation Matrix of the 13 Life Values

N=215

1

| 1. A Sense of Accomplishment | 2 | | | | | | | | | | | |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2. A Comfortable Life | 0.01 | 3 | | | | | | | | | | |
| 3. Self - Respect | -0.06 | -0.41 | 4 | | | | | | | | | |
| 4. Freedom | -0.19 | -0.24 | 0.10 | 5 | | | | | | | | |
| 5. Happiness | -0.03 | 0.17 | -0.22 | -0.11 | 6 | | | | | | | |
| 6. Pleasure | -0.18 | 0.52 | -0.38 | -0.23 | 0.14 | 7 | | | | | | |
| 7. Equality | -0.21 | -0.54 | 0.13 | 0.38 | -0.27 | -0.36 | 8 | | | | | |
| 8. Social Recognition | 0.21 | 0.08 | -0.01 | -0.23 | -0.04 | -0.17 | -0.22 | 9 | | | | |
| 9. Family Security | 0.00 | -0.01 | -0.01 | -0.08 | -0.09 | -0.08 | 0.00 | -0.04 | 10 | | | |
| 10. A World of Beauty | -0.17 | -0.21 | 0.01 | -0.06 | 0.05 | 0.00 | 0.02 | -0.18 | -0.28 | 11 | | |
| 11. True Friendship | -0.24 | -0.32 | -0.11 | 0.14 | -0.16 | -0.18 | 0.28 | -0.28 | 0.03 | 0.02 | 12 | |
| 12. Wisdom | -0.14 | -0.38 | 0.23 | 0.00 | -0.27 | -0.32 | 0.19 | -0.12 | -0.15 | -0.02 | 0.11 | |
| 13. An Exciting Life | -0.06 | 0.21 | -0.27 | -0.26 | 0.00 | 0.22 | -0.32 | -0.07 | -0.22 | 0.03 | -0.13 | -0.22 |
| | | | | | | | | | | | | 13 |

Table 3.6 Principal Factoring with Iterations of the 13 Life Values (Varimax Rotation N=223)

| Life Values | Factors 1 | 2 | 3 |
|-----------------------------|-----------|--------|--------|
| 1.A sense of Accomplishment | -0.066 | -0.468 | -0.156 |
| 2.A Comfortable Life | 0.788 | -0.247 | -0.156 |
| 3.Self Respect | -0.517 | -0.070 | 0.051 |
| 4.Freedom | -0.242 | 0.395 | -0.136 |
| 5.Happiness | 0.284 | -0.090 | 0.112 |
| 6.Pleasure | 0.742 | 0.084 | 0.114 |
| 7.Equality | -0.497 | 0.531 | -0.136 |
| 8.Social Recognition | -0.062 | -0.535 | -0.140 |
| 9.Family Security | -0.006 | 0.008 | -0.439 |
| 10.Beauty | -0.050 | 0.142 | 0.566 |
| 11.True Friendship | -0.171 | 0.480 | -0.054 |
| 12.Wisdom | -0.437 | 0.113 | 0.102 |
| 13.An Exciting Life | 0.364 | -0.110 | 0.282 |

Factor1: Eigenvalue 2.479 (19 percent of the variance)

Factor2: Eigenvalue 1.060 (8.15 percent of the variance)

Factor3: Eigenvalue 0.679 (5.22 percent of the variance)

From the results presented in Table 3.6 we can see that this third factor cannot stand on its own statistically due to its small eigenvalue but it is noteworthy that a similar factor appeared in Rokeach's factor analysis in which there was a positive loading of *Beauty* (0.58) and a negative loading of *Family Security* (-0.50). Rokeach named this factor "societal versus family security" as it also involved *Equality*, *Helpful*, *Imaginative*, with positive loadings and *Ambitious*, *Responsible*, *Capable* with negative loadings. It must also be pointed out that *Equality* in our case loaded on two factors, whereas *Happiness* on none.

The three factors that seem to emerge from our sample's rankings of the life Values are:

Factor 1. Pleasure, comfort, and excitement in life seem to be contrasted with values associated with personal integration.

| | |
|----------------------------|-----------------------|
| A Comfortable Life (0.788) | Self-Respect (-0.517) |
| Pleasure (0.742) | Equality (-0.497) |
| An Exciting Life (0.364) | Wisdom (-0.437) |

Factor 2 Social accomplishment and integration seem to be contrasted with personal accomplishment.

| | |
|-------------------------|------------------------------------|
| Freedom (0.395) | A Sense of Accomplishment (-0.468) |
| Equality (0.531) | Social Recognition (0.535) |
| True Friendship (0.480) | |

Table 3.7 Correlation Matrix of 18 Work Values

| | N=215 | | | | | | | | | | | | | | | | | |
|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|----|
| | 1 | | | | | | | | | | | | | | | | | |
| 1. Status | 2 | | | | | | | | | | | | | | | | | |
| 2. Independence | -0.11 | 3 | | | | | | | | | | | | | | | | |
| 3. Intell. Stimulation | -0.09 | 0.13 | 4 | | | | | | | | | | | | | | | |
| 4. Originality-Invention | -0.08 | 0.17 | 0.44 | 5 | | | | | | | | | | | | | | |
| 5. Advancement | 0.16 | -0.22 | -0.33 | -0.26 | 6 | | | | | | | | | | | | | |
| 6. Artistic Freedom | -0.23 | 0.20 | 0.31 | 0.32 | -0.27 | 7 | | | | | | | | | | | | |
| 7. Authority | 0.40 | -0.05 | -0.31 | -0.18 | 0.24 | -0.33 | 8 | | | | | | | | | | | |
| 8. Success-Accomplishment | 0.12 | -0.10 | 0.11 | 0.13 | -0.07 | 0.10 | 0.00 | 9 | | | | | | | | | | |
| 9. Opportunity to Travel | -0.04 | -0.03 | -0.21 | -0.18 | -0.11 | -0.10 | 0.06 | -0.17 | 10 | | | | | | | | | |
| 10. Help Others | -0.16 | 0.00 | 0.11 | 0.02 | -0.24 | 0.09 | -0.33 | 0.10 | -0.21 | 11 | | | | | | | | |
| 11. Make Acquaintances | 0.00 | -0.12 | -0.21 | -0.25 | -0.28 | -0.07 | -0.04 | -0.07 | 0.30 | 0.11 | 12 | | | | | | | |
| 12. Pleasure Outside Work | -0.07 | -0.03 | -0.22 | -0.12 | -0.07 | -0.12 | 0.00 | -0.25 | 0.31 | -0.23 | 0.18 | 13 | | | | | | |
| 13. Salary | 0.00 | -0.17 | -0.33 | -0.40 | 0.34 | -0.45 | 0.14 | -0.07 | 0.15 | -0.36 | -0.08 | 0.24 | 14 | | | | | |
| 14. Good Management | -0.28 | -0.20 | -0.23 | -0.29 | 0.22 | -0.19 | -0.07 | -0.11 | -0.19 | -0.02 | -0.09 | -0.08 | 0.08 | 15 | | | | |
| 15. Working Conditions | -0.34 | -0.07 | -0.22 | -0.20 | 0.03 | -0.15 | -0.21 | -0.23 | -0.14 | 0.04 | -0.02 | 0.28 | 0.11 | 0.35 | 16 | | | |
| 16. Variety | -0.10 | -0.06 | 0.00 | 0.09 | -0.25 | 0.11 | -0.08 | -0.01 | 0.06 | -0.05 | -0.00 | -0.06 | -0.10 | -0.23 | -0.07 | 17 | | |
| 17. Secure, Stable, Job | -0.08 | -0.29 | -0.30 | -0.29 | 0.30 | -0.30 | -0.01 | -0.09 | -0.18 | -0.09 | -0.15 | -0.16 | 0.32 | 0.33 | 0.27 | 0.23 | | |
| 18. Relations with Colleagues | -0.27 | -0.55 | -0.01 | -0.25 | -0.13 | -0.01 | -0.32 | -0.13 | -0.15 | 0.26 | 0.12 | -0.06 | -0.13 | 0.23 | 0.20 | 0.00 | 0.02 | 18 |

Factor3 Beauty versus family Security

Family Security (-0.439) Beauty (0.566)

Table 3.7 presents intercorrelations between Work Values. *Intellectual Stimulation*, *Salary*, and *Secure, stable Job*, seem to be the values intercorrelating most with other values. The highest intercorrelations are between *Salary* and *Artistic Freedom* (-0.454), *Originality-Invention* and *Intellectual Stimulation* (0.443), *Status* and *Authority* (0.402), and *Salary* and *Originality-Invention* (-0.406). All these coefficients are in the expected direction and the same is true for most of the other coefficients which could be taken as an indication of consistency in the ranking of the values.

Table 3.8 presents the results of a factor analysis of the Work values (SPSS-PA2 Varimax Rotation). Three distinct factors appeared accounting for 15.4%, 10.4% and 8.00% of the variance, respectively (eigenvalue>1.00). A fourth factor also appeared which did not meet the eigenvalue>1.00 criterion and which accounted for 4.8% of the variance. This factor is presented here for descriptive purposes as it shows better, along with the others, the dimensions that seem to emerge from our sample. In total, the factors emerging from the analysis of the Work Values explain more of the variance than the factors that the analysis of the Life Values gave us.

The factors extracted from the factor analysis of the Work Values are:

Factor1 Extrinsic Rewards versus Intrinsic Rewards

Advancement (0.527) Independence (-0.350)
 Authority (0.323) Int.Stimulation (-0.572)
 Salary (0.497) Originality-Invention (-0.643)
 Management (0.436) Artistic Freedom (-0.589)
 Secure,stable Job (0.561)

Factor2 Working Conditions versus Status (*) and Authority

Good Management (0.462) Status (-0.687)
 Working conditions (0.561) Authority (-0.537)
 Relations with Colleagues (0.450)

* The specific problem connected with Status as a value in this research is discussed in section 4.2, in this Part.

Factor3 Social Relations versus Intellectual Accomplishment

Opportunity to travel (0.634) Intell.Stimulation (-0.330)
 Make Acquaintances (0.320) Success-Accomplishment (-0.316)
 Pleasure outside Work (0.587) Help others (-0.381)
 Salary (0.372)

Factor4 Altruism and Social Relations versus Advancement

Help others (0.446)
 Make Acquaintances (0.635)
 Relations with Colleagues (0.363) Advancement (-0.380)

Table 3.8 Principal Factoring with Iterations (PA2) of the 18

Work Values (Varimax Rotation, N=223)

| Work Values | Factors | 1 | 2 | 3 | 4 |
|--------------------------|---------|--------|--------|--------|--------|
| 1. Status | | 0.198 | -0.687 | -0.114 | 0.002 |
| 2. Independence | | -0.350 | -0.002 | 0.028 | -0.062 |
| 3. Intel. Stimulation | | -0.572 | 0.005 | -0.330 | -0.073 |
| 4. Original-Invention | | -0.643 | -0.083 | -0.234 | -0.254 |
| 5. Advancement | | 0.527 | -0.103 | -0.045 | -0.380 |
| 6. Artist. Freedom | | -0.589 | 0.140 | -0.108 | 0.003 |
| 7. Authority | | 0.323 | -0.537 | 0.116 | -0.156 |
| 8. Success Accompl. | | -0.039 | -0.256 | -0.316 | 0.040 |
| 9. Opport. Travel | | -0.040 | -0.154 | 0.634 | 0.154 |
| 10. Opport. Help others | | -0.133 | 0.187 | -0.381 | 0.446 |
| 11. Make Acquaintances | | 0.050 | -0.060 | 0.320 | 0.635 |
| 12. Pleasure out. Work | | 0.003 | 0.035 | 0.587 | 0.016 |
| 13. Salary | | 0.497 | -0.010 | 0.372 | -0.294 |
| 14. Good Management | | 0.436 | 0.462 | -0.132 | -0.062 |
| 15. Working conditions | | 0.258 | 0.561 | 0.029 | -0.023 |
| 16. Variety | | -0.240 | -0.018 | 0.080 | 0.071 |
| 17. Secure, stable Job | | 0.561 | 0.264 | -0.138 | -0.216 |
| 18. Relations with Coll. | | 0.087 | 0.450 | -0.137 | 0.363 |

Factor1: Eigenvalue 2.774 15.40 percent of the variance

Factor2: Eigenvalue 1.865 10.40 percent of the variance

Factor3: Eigenvalue 1.428 8.00 percent of the variance

Factor4: Eigenvalue 0.856 4.80 percent of the variance

4. Discussion of the Differences and Similarities in Value Systems Between Pupils, Parents, and Types of Curriculum.

4.1 Life Values

Examining differences in value systems, we must combine the information that we get from the composite rank orders with the information given by the tests of statistical significance of the differences. Differences in ranks sometimes do not represent true differences if the medians are close or if the scores have shown great variability. If we assume that in essence we have three categories of ranked values - top, middle, bottom - then the tests of significance, the Mann-Whitney in our case, can also be misleading, because they might give us a significant difference of the median but if the value in question happens to be in the top, low or middle values of both groups compared, the difference is not always of great interest. With such considerations in mind we shall proceed to an interpretation of the differences in the value systems of our groups.

Our basic hypothesis in examining the value systems of both children and their parents was that they would present similarities which could not be attributed solely to their sharing the same culture. This hypothesis seems to be confirmed. As it was reported earlier, the pupils in our sample differed significantly from their parents in only a few of the values in either set, none of which (with the exception of *Freedom*) was a top value. If we have a look at the six top values of each group we have the following picture:

| Sons | Mothers | Fathers |
|-----------------|-----------------|-----------------|
| Freedom | Family Security | Freedom |
| Happiness | Self-Respect | Family Security |
| True Friendship | Freedom | Self-Respect |
| Self-Respect | Happiness | Equality |
| Equality | Equality | Happiness |
| Wisdom | Wisdom | Wisdom |

Sons differ significantly from both parents in *Family Security*, which the parents as expected value more, and from their fathers in *True Friendship*. Again, as expected, the children value it more. Another significant difference between mothers and sons was in *Freedom* but we cannot say that it is of any importance here since, as it is obvious, it reflects a difference in median values and not a true difference, since it is at the top of both value systems. Its position, though, in relation to other top values can give us some indications: sons value *Freedom* more than *Happiness*, *True Friendship*, and *Self-Respect*, fathers value it more than *Family Security*, *Self-Respect*, and *Equality*, while mothers value *Family Security* and *Self-Respect* more than *Freedom*.

The same things can be said about the bottom values. If we take the four last values in the hierarchy of each group, we have the following picture:

| Sons | Mothers | Fathers |
|--------------------|------------------|------------------|
| Social Recognition | Exciting Life | Comfortable Life |
| Exciting Life | Comfortable Life | Exciting Life |
| Pleasure | Beauty | Beauty |
| Beauty | Pleasure | Pleasure |

Again the significant differences in *Beauty* between sons and mothers, and sons and fathers reported earlier, reflect differences in the rankings, and not true differences if we take the values placed at the bottom separately.

In general, the similarity in values, both at the top and the bottom of the hierarchy, between the three groups, and between sons and parents, in particular, which is of interest here, is so great that we can assume that the value system of our sample of pupils has originated from the value system of their parents with the differences expected from the difference in age, i.e. *Family Security* valued more by the parents and *True Friendship* valued more by the sons.

Freedom, Happiness, True Friendship, and Self-Respect being the top Life Values seem to characterize our sample of pupils from both schools. On the other hand, *An Exciting Life, Pleasure, and Beauty* appear to be valued least. It is obvious that pleasure, as a life goal, is vividly contrasted to altruism and social relations. This also appeared as a separate dimension in our factor analysis, as it was reported earlier.

If we contrast the four top values of the pupils with their

bottom four values, we have the following contrast:

| Top | Bottom |
|-----------------|--------------------|
| Freedom | Social Recognition |
| Happiness | An Exciting Life |
| True Friendship | Pleasure |
| Self Respect | Beauty |

We could claim that the contrast is between personal dignity and personal integration, on the one hand, and personal accomplishment, on the other. This is further pronounced by the values following each top-bottom part. *Equality*, *Wisdom*, and *A Sense of Accomplishment* follow the top values, in the hierarchy, while *Family Security* and *A Comfortable Life* precede the four bottom values. In the value hierarchy of our pupils it appears that end-state needs have a priority over personal needs, which constitute short-term goals, or means.

The appearance of *Freedom* as the top value can easily be explained within the social and historical framework of the Greek society. For almost four centuries the Greeks were under a Turkish occupation, to which all the problems of modern Greek society have traditionally been attributed. Freedom was twice restricted in the recent years, once by the Nazis who occupied Greece for four years (1940-1944), and then by the military junta (1967-1974), two experiences that were more recent and have left deep scars in contemporary Greek society.

It is our view though, that besides historical reasons social reasons must have played a more important part in shaping such

evaluations. Greek society in most of its institutions, the family, the school, the civil services, public administration, is strongly characterised by authoritarianism, and thus lack of liberalism, in conjunction with the traditional emphasis placed mainly on national freedom must have resulted in either a true, or a stereotypic evaluation of freedom.

The truth is, though, that besides particularistic explanations that we may offer concerning our sample, *Freedom* as a top value appears in other studies of similar nature involving young people (cf. Feather, 1975; Rokeach, 1973), which must mean that it is a characteristic top value among young people.

In the same context we must consider the high position given to *Self-respect*. In this case our sample have given it a much higher rank than the pupils that took part in Feather's (1975) study. We must also pay attention to the fact that these two values (*Freedom*, *Self-Respect*) also appear at the top of the hierarchy of the parents, although when it comes to generational differences (e.g friendship, and security of the family) we see no such consensus between parents and children.

As for *Happiness*, it can be said that it appears to be given high ranks in other studies, too. What is of interest though, with the ranking of *Happiness* by our sample, is that fathers and mothers seem to give it a somewhat lower position than the children, which reflects both the realism of adults and the needs or fears of the young. The difference, however, is not so great, if we look at the medians (5.0 of the sons, 5.8 of the mothers, and 6.0 of the fathers).

One additional hypothesis that was made beforehand, that there would be some differences between the two schools, was only marginally supported. The hypothesis had been made on the following assumption: All of the parents of the private school could have sent their children to the state school, also, some of the parents of the state school could have sent their children to the private school. On the basis of the material collected from the interviewed sub-sample it was found that there were some class differences between the two schools. There were more working class pupils in the state school while the few upper class pupils of our sample appeared only in the private school. We found that if we contrasted upper and middle class on the one hand and working class on the other, the difference between the two schools in social class composition was significant.

Whatever the case might have been, it was expected that belonging to either school environment would reflect on the value systems of the parents, firstly, and the children secondly. We should not proceed, however to speculations about differences in values between the two schools reflecting social class differences, as we do not have data on social class membership of the whole sample.

Unexpectedly, however, no significant difference was found in the Life Values set between parents of the two schools. The only significant difference found was between mothers in *True Friendship*. Yet, the only difference found between pupils of the two school environments, in *Wisdom*, could give us a clue,

if we consider the importance of education in the Greek society. We can only guess at the semantic meaning of the word "wisdom" to our pupils but as the Greek word for it has been connected with knowledge since ancient times, there is a high possibility that it was interpreted as "education". This is a possible reason why it was also the only significant difference in Life values between Sciences pupils and the less privileged educationally Technical pupils. In other words, the fact that the private school pupils place *Wisdom* fifth and the state school pupils place it eleventh, and that this difference is statistically significant, might reflect the higher importance given to Education by the private school pupils, and this could reflect original choice of school or a value priority formed because of the attendance of this particular school, if not a social class difference.

In general, the value systems of the pupils of the two schools present similar Life Value hierarchies, as can be seen by inspection of Table 2.1 and, thus, with some reservation about the true meaning of *Wisdom*, in which they differ significantly, it can be said that there is an overall homogeneity in Life Values in the combined sample.

4.2 Work Values

Our hypothesis that the value systems of sons would have a marked similarity with those of their parents, was also supported in the case of Work Values, with the rider that the similarity was greater between sons and fathers, something that should have been expected.

Let us look at the six top values of the three groups, sons, fathers, and mothers.

| Sons | Mothers | Fathers |
|------------------|---------------------|---------------------|
| Success-Accompl. | Success-Accompl. | Success-Accompl. |
| Independence | Secure Job | Secure Job |
| Salary | Working Conditions | Independence |
| Secure job | Originality-Invent. | Salary |
| Originality-Inv. | Good Management | Originality-Invent. |
| Working Cond. | Intellect.Stimul. | Working Conditions |

We can see that the top values between sons and fathers are almost identical. If we consider the fact that the top values of the mothers, too, resemble to a large extent the value hierarchy of the fathers and the sons, we can assume, once more, that within similar groups of families, members share what Feather calls a cognitive ecological system.

The only difference that is statistically significant is in Variety between sons and fathers, something strange, at first view, because it is ranked 15th and 16th respectively. It is easily explained, though, if we look at the medians which are

11.7 and 14.3, respectively. As we said earlier, such differences simply reflect variability in the scores and they are not of particular interest, since in both cases the value is placed at the bottom of the hierarchy.

The differences that are statistically significant between sons and mothers in Work Values are in *Independence*, *Opportunity to Help Others*, *Management*, *Working Conditions*, and *Secure, stable Job*. While in the Life Values set *Freedom* had a high position in the value hierarchy of all three groups, when it comes to Work Values, its equivalent, *Independence*, is not given a high rank by mothers, while both fathers and sons continue to give it a high rank (third and second, respectively). It is not easy to explain this inconsistency. It should be expected that mothers having generally less experience of paid work would show less concern for autonomy in work. On the other hand, if we assume that mothers do care about independence in work, they must have expressed this through the higher rank they gave to *Management* (5th), while sons and fathers give a high rank to *Independence* and low ranks to *Good Management* (11th for both). We saw in a previous section that in the first factor of our factor analysis, the factor we named "Extrinsic versus Intrinsic Rewards", *Advancement*, *Authority*, *Salary*, and *Secure, stable Job* had positive loadings, while *Independence*, *Intellectual Stimulation*, *Originality - Invention*, and *Artistic Freedom* had negative loadings. This could mean that in the perceptions of our subjects you can have the former at the expense of the latter.

The differences in *Working Conditions* and *Secure, stable*

Job once more reflect differences in the variability of scores, since they are of the top values of all three groups. The difference in *Help Others* must represent a particular concern in the case of mothers, as opposed to their children. At any rate this value is not given a high rank by mothers either (11th).

If we try to interpret the value hierarchy of our sample of pupils, we can reach some interesting conclusions. The absence of interest in the material and hedonistic aspects of life that was predominant in the ranking of Life Values in a way continues in the ranking of the Work Values. Thus, we find *Success - Accomplishment*, and *Independence* at the top together with *Salary, Secure, stable Job, Originality - Invention*, and *Working Conditions*. *Independence* is still at the top, in the same way that *Freedom* was in the Life Values set, but we must point out that while the Life Values were ranked non-contextually, i.e. in a general non-specific manner, the Work Values must have been ranked with the subjects most probably having concrete, if not specific, situations in mind, their fathers' jobs or the particular jobs they had been thinking about. In this way the ranking of the Work Values must have been done contextually, and thus more realistically.

In any case, what is apparent in the value hierarchy of our group of pupils is a need for accomplishment and creativity in the work context accompanied by a need for good working conditions and good salary. The same evaluations seem to appear in the parents as well.

One value that appears at the top and can be interpreted as reflecting the structural impact on such cognitive evaluations is *Secure, stable Job*. The anxieties of the parents have been transmitted to the sons. But there is something else, too. At the time of the research, unemployment had just started making its first appearance in Greek society, after the economic boom of the postwar years. Thus, we can understand why stability is something highly valued by our pupils.

What is strange is the low rank given to *Status* (16th). It is our firm belief that the word was taken to mean something else, because if there is one value prominent in everyday middle-class life in Greece it is the pursuit of a "social position", through the acquisition of educational qualifications, which sometimes are never going to be used professionally. This is the main reason for what we said earlier: all pupils in the last year of secondary education are by default candidates for higher education. It is significant that in 1983 a new system was introduced: some pupils could opt not to be candidates, if they chose to, and the system has failed according to most accounts, because very few chose this route. We must reiterate that the percentage of pupils attending the second cycle of secondary education in Greece is among the highest in Europe, and the same is true for higher education (but not of non - University level) (Cassotakis, 1979). It is our feeling that *Status* might have received a higher position if a more suitable word (e.g. *Social Position*) had been chosen. The way most people in Greece would refer to social status would be "educated" or "a place/position in society" or "successful". Most probably the high evaluations of *Success-Accomplishment*

and *Wisdom* in our sample reflect just that.

Let us now compare the two school environments. It was said earlier that our hypothesis that the two schools would differ significantly was not supported in the case of the Life values, with some reservations about the true meaning of *Wisdom*. Some characteristic differences in the case of Work Values were:

| | Rank | |
|--------------------------|-----------|---------|
| | Leontion | Grava |
| | (private) | (state) |
| Intellectual Stimulation | 7 | 11 |
| Advancement | 15 | 7 |
| Variety | 11 | 16 |
| Secure, stable Job | 6 | 2 |

Of these differences only *Advancement* was statistically significant. It is our view that this difference, along with the nonsignificant ones, reflects the anxieties and the wishes of the socially and educationally privileged pupils on the one hand and the unprivileged on the other. *Advancement* and *Secure, stable Job* are more important for the state school pupils because they know they are difficult for them to get. Similarly, more "luxurious" values like *Variety* and *Intellectual Stimulation* are more important for the private school pupils who also care less for the security of the job and for advancement in their future jobs, obviously because they have not experienced such threats in their family environments. It is our feeling that if the social class differences that characterize our interviewed sub-sample are representative of

differences that are also present in the whole sample, these class differences must be reflected in the ranking of these values.

If we consider statistically significant differences between types of school, we find none in the state school. In the private school though, the Arts pupils value *Status*, *Advancement*, and *Authority* more than the Sciences people. Arts graduates are not expected to attain such values easily, thus such evaluations should be taken to reflect needs. At this point perhaps we should refer back to Table 8.2 in Part II, where we can see that the forecast for Humanities graduates is very bleak as a surplus of around 27,000 such graduates will exist by 1985.

In this discussion of the value systems it has become apparent that we have adopted the view that values are manifestations of needs, a view presented by Rokeach (1973). We think that this view is supported to a certain extent by the value hierarchies that we have presented.

5. Work Salience - The Work Quiz

It was pointed out earlier that the Work Quiz was included in this study as an attitude measure (Work Salience) that would eventually be related to values. Rokeach considers values the antecedents of attitudes and on this theoretical basis, it was hoped that some relations between certain values and attitudes, and, perhaps, even a causal link could be established.

5.1 The Three Original Scales of the Work Quiz.

The WQ items and their corresponding abbreviated forms, with the means and standard deviations are presented in the Appendix. The three dimensions measured (Responsibly Committed, Traditionally Comfortable, and Passively Unconcerned) were also presented earlier (Part II, section 5.1).

Since the instrument had not been piloted at all with a Greek sample, the responses of our subjects were factor analysed so that the dimensions emerging from our sample could be examined. Table 5.1 presents loadings on the three scales. The first column (marked K.T.) under each factor presents the loadings reported by the author and the second column (marked A.K.) the loadings in our own factor analysis. The abbreviated Work Quiz items are presented.

Both analyses were similar in method (Principal Factoring-SPSS PA2 - Varimax Rotation). In both analyses responses were classified as 1: disagreement, 2: neutral, and 3: agreement, so that individual variations in the strength of agreement or

Table 5.1 Factor Loadings of the WQ Items On the Three Scales.

| WQ Items* | Resp.Comm | | Trad.Comf | | Pass.Unconc. | |
|------------------------------|-----------|-------|-----------|-------|--------------|-------|
| | K.T. | A.K. | K.T. | A.K. | K.T. | A.K. |
| 1.Everybody gets promotion | | | 0.43 | 0.39 | | |
| 3.Job of Real Value | 0.39 | 0.59 | | | | |
| 4.Prefer Resp.Organiz. | | | 0.43 | 0.45 | | |
| 5.Pay very important | -0.30 | 0.14 | | | | |
| 7.As long as it keeps going | | | | | 0.34 | 0.11 |
| 8.Never flog yourself | | | | | 0.37 | 0.52 |
| 9.Uneasy if could do better | 0.28 | 0.31 | | | | |
| 11.Pensions,benefits | | | 0.53 | 0.30 | | |
| 12.Don't mind job | | | | | 0.29 | 0.10 |
| 13.Give up own time | 0.43 | 0.38 | | | | |
| 15.Friends think little | | | 0.30 | 0.00 | | |
| 16.Wouldn't work but have to | -0.45 | -0.48 | | | | |
| 17.Best out of me | | | | | -0.46 | -0.11 |
| 18.Continue as youngster | | | 0.35 | -0.08 | | |
| 19.Want challenge | | | | | -0.47 | -0.06 |
| 20.Interest not money | 0.52 | 0.26 | | | | |
| 21.Personally involved | 0.44 | 0.63 | | | | |
| 22.Not think when done | | | 0.31 | 0.25 | | |
| 24.Surrounding not people | | | 0.46 | 0.22 | | |
| 26.Time for leisure | | | 0.36 | 0.14 | | |
| 27.Hate in charge | | | | | 0.41 | 0.29 |
| 29.Want responsibilities | | | | | -0.52 | -0.37 |
| 30.Parents' advice | | | 0.31 | 0.24 | | |
| 31.Perfectionist | | | | | -0.28 | -0.03 |
| 32.Others' advice | | | 0.44 | 0.35 | | |

NB:K.T. loadings reported by the author A.K. loadings of our own factor analysis.

*Only items included in both analyses are presented.

disagreement could be removed (Taylor, 1975; p. 93). Taylor's analysis is based on 332 respondents and ours on 225 respondents. It can easily be seen that there is a great deal of disagreement in the two analyses.

Despite the above results, an effort was made to classify pupils into types on the basis of their scores on the scales. As expected, it did not work, because very few pure types were found. After some more attempts at utilizing the material collected in different ways, it was decided that it should be further investigated in the way that it seemed to emerge from our sample. As a matter of fact it was noticed that there was a tendency for items to cluster together according to the initial categorization made by Taylor (Actualizing, Calculating, Traditional) which he had abandoned because it had not been supported by the data.

5.2 The New Scales

Three new scales were constructed on the basis of the results of our own the factor analysis and the initial categorizations made by Taylor. Two of the scales seemed to be similar to the initial scales employed by Taylor (Actualizing, Calculating) but the third scale did not seem to fit the description of "Traditional". Twenty four items of the original 33 were kept, 8 for each scale, one of which had a negative loading on the scale. The three final scales employed in the analysis, the loadings of the items on the factors (the scales), and the initial classifications were as follows:

Scale1:ACTUALIZING

Loading Initial
Category

| | | |
|---------------------------------|----------|-------------|
| WQ3.Job of real value | (0.522) | Actualizing |
| WQ9.Uneasy if I could do better | (0.303) | Actualizing |
| WQ13.Give up own time | (0.366) | Actualizing |
| WQ16.Wouldn't work but have to | (-0.456) | Traditional |
| WQ19.Want challenge | (0.491) | Actualizing |
| WQ21.Personally involved | (0.644) | Actualizing |
| WQ23.Encourage initiative | (0.409) | Actualizing |
| WQ31.Perfectionist | (0.515) | Actualizing |

In the first new scale we see that the only item that had not been categorized as Actualizing by Taylor is Item 16 (Wouldn't work but have to) but its negative loading on the scale allows its inclusion.

Scale2:CALCULATING

Loading Initial
Category

| | | |
|---------------------------------|----------|-------------|
| WQ1.Everybody gets promotion | (0.444) | Calculating |
| WQ2.Same line as family | (0.327) | Traditional |
| WQ4.Prefer respected organiz/on | (0.462) | Calculating |
| WQ5.Pay very important | (0.534) | Calculating |
| WQ11.Pensions,benefits | (0.273) | Calculating |
| WQ20.Interest not money | (-0.364) | Actualizing |
| WQ28.Not leave home | (0.285) | Traditional |
| WQ30.Parents' advice | (0.250) | Traditional |

Note: Items WQ11, WQ28, WQ30 do not meet the criterion of significance for factor loadings (± 0.300) (cf. Child, 1970).

Four items had not initially been categorized as "Calculating" (Items 2, 20, 28, and 30). Item 2 (same line as family) could easily be a "calculating" item within a particular culture, as seems to be the case with our sample. The negative loading of item 20 (interest not money) also allows it to be included. Finally, items 28 (not leave home), and 30 (Parents' advice) could again be considered as "calculating" within a specific cultural context.

The third scale could not exactly be called "Traditional". On the basis of the content of the items loading on this scale, which showed a detached attitude towards work we decided to call this scale "Uninvolved".

| Scale3:UNINVOLVED | Loading | Initial Category |
|-----------------------------|----------|---------------------|
| WQ8.Never flog yourself | (0.499) | Traditional |
| WQ14.Everyone relax | (0.471) | Calcul./Tradit. |
| WQ15.Friends think little | (0.463) | Traditional |
| WQ18.Continue as youngster | (0.247) | Traditional |
| WQ24.Surrounding and people | (0.300) | Calculating |
| WQ26.Time for leisure | (0.597) | Calculating |
| WQ27.Hate in charge | (0.343) | Calculating |
| WQ29.Want responsibilities | (-0.399) | Actualizing |

The three scales were far from perfect but at least they

reflected some cultural idiosyncracies as one can easily see. The "Calculating" scale, in particular, seemed to be the weakest of the three, in that three items did not load on the scale significantly.

As a matter of fact, the three scales that were first tested with our sample (Responsibly Committed, Traditionally Comfortable, and Passively Unconcerned), showed very low reliability coefficients (alphas: 0.108, 0.449, and -0.263 respectively). The three new scales seemed to do better. Reliability coefficients (alphas) were higher: Actualizing 0.636, Calculating : 0.481, Uninvolved: 0.438, but still not high enough to allow us to say that psychometrically the instrument was reliable.

The adaptation of the instrument had been made after the measurement and thus it was not possible for results to change significantly. In any case, in terms of absolute magnitude of the scores 159 pupils could be classified as "actualizing" (71.3%), 27 as "calculating" (12.1%), and 6 as "uninvolved" (2.7%). 31 pupils (13.9%) had equal scores on the "actualizing" and "uninvolved" scales, which was strange, because these two scales were assumed to be exact opposites, and 1 pupil had equal scores on all three scales. Whether these results reflect an inadequacy of the instrument or an inconsistency in the responses is not known. The fact was that in general the instrument was not effective.

In view of the above results, it was decided that no further analysis would be made based on such classifications. What was

done though, was a correlation analysis between scores on the scales and scores on individual values for the exploration of existing trends.

All the coefficients obtained were very low. We shall present here only coefficients that were higher than ± 0.3 . They are all statistically significant ($p < 0.01$):

| | |
|--------------------------------------|-------|
| Uninvolved-Pleasure | 0.306 |
| Calculating - Advancement | 0.362 |
| Calculating - Salary | 0.318 |
| Actualising - Success-Accomplishment | 0.309 |

Other correlation coefficients with regard to the "Uninvolved" scale were with Success- Accomplishment (-0.282), and with *Pleasure outside work* (0.266).

The above coefficients between attitudes to work and values show some indications of a relationship between the two, as well as a certain amount of consistency in the responses given. It is obvious that the Work Quiz, in the form employed in this study, was not able to unravel any such relationships in a statistically irrefutable way. A better adaptation of the instrument, or a better instrument altogether, may in the future explore such relationships in a more meaningful way.

The three dimensions of young people's attitudes to work that seem to emerge from our sample are:

Actualizing: The person adopting this attitude seems to value work, to be a perfectionist and to seek initiative and personal

involvement in work. This attitude seems to be related with the position of *Success-Accomplishment* in the value hierarchy.

Calculating : The person adopting this attitude seems to give a high value to the monetary rewards of work and not to intrinsic rewards (interest). He seems to be concerned with promotion and security and to show strong family bonds. This attitude seems to be related with the evaluations given to *Advancement* and *Salary*.

Uninvolved : The person adopting this attitude seems to be more concerned with leisure and social relations than with work itself. This person seems to avoid responsibilities and hard work. This attitude seems to be related with the evaluation of *Pleasure*.

We can assume that such attitude dimensions, as the ones tentatively presented in this research do exist, but they were not described precisely by our scales. What is of importance though, is that our sample presented some evidence that these three dimensions (*Actualizing*, *Uninvolved*, *Calculating*) were more meaningful than the ones initially employed (*Responsibly Committed*, *Traditionally Comfortable*, *Passively Unconcerned*). As the latter emerged from a sample of Australian young people, it can be said that most probably cultural, or sampling differences are reflected in the two different results.

In our view, attitudes to work must be culture specific, and the results of the Work Quiz indicate that. As far as we know, in the case of the culture within which this research was

conducted there has not been any previous work that would indicate the possible directions and dimensions such attitudes might have, and in this sense, the results of the Work Quiz could serve as the seminal framework. In our case though, some general attitudes to work were investigated through the interview, the results of which will be presented in a later section.

6. The Expectancy Model

6.1 Purpose

The purpose of this part of the research was to test the hypothesis that occupational choice is a value attainment process. We explained earlier, speaking of Vroom's model, how such a model can help bridge psychological and sociological theory on the occupational choice process. This is the reason why we tried first to map the general cognitive ecological system within which our sub - sample was to make occupational evaluations. In other words, what we are attempting to show in this section is how a macro level of analysis (value hierarchies, value differences and similarities between parents and children, between schools and curricula etc.) can be employed in a micro examination of motivated behaviour. If the sociological level of analysis can be demonstrated to have a relevance for a psychological examination of motivated individual behaviour, we can assume that the reverse is also true. In the way that we employed values in this research, a host of other structural elements measured beforehand can be incorporated into this, or any other for that matter, decisional or motivational model. The procedure followed was described earlier. Some additional information will be given here.

6.2 Sample and Procedure.

The interviewed sub-sample of pupils was drawn from the original sample by random sampling (lottery). The pupils who corresponded to the numbers drawn in the class roll were asked

to have an interview with the investigator. Part of the interview employed the motivational model. This was judged to be a procedure that should take place in the investigator's presence for two main reasons: a) Long boring written directions would be avoided, and thus more genuine measurements would be obtained, as misunderstandings would not take place; b) The occupational alternatives that would be considered, ranked, and rated in terms of instrumentalities, would be genuine considerations on the part of the pupils and not random answers that were given just to return a filled questionnaire. Of course there was a drawback to all this, the number of respondents would inevitably be smaller. The response rates were reported in Part II, section 8.3.

The first thing that was usually asked of the students was to rate the two sets of values according to the continuum presented in the Appendix. The continuum presented the figure of a scale from 1 to 100 with the following cut-off points and verbal anchorings:

1 to 20: Almost Unimportant
20 to 50: Of Little Importance
50 to 70: Important
70 to 90: Very Important
90 to 100: Of High Importance

The pupils were asked to designate an importance rating for each item in the two values sets. They were free to give any value between 1 and 100. Thus a new interval scale measure of the interviewed pupils' value hierarchies was obtained.

The value systems of the 67 pupils that were interviewed are presented in Tables 6.1 and 6.2. The tables present the medians and the composite rank orders of the ranked sets (sorted cards) of the whole sample (N=225) and of the rated values (1 to 100) of the interviewed sample (N=67). Next to the rated values, means and standard deviations are also presented (because this is more appropriate for interval scale measures), and these means are rank ordered in the next column, so that they can be compared with the ranked medians. The Spearman rank order correlation (similarity) coefficient between the two value systems is 0.979 for the Life Values and 0.893 for the Work Values. The two measurements are fairly similar in general, with the exception of some work values e.g. *Advancement*, *Help Others* which should reflect most probably some kind of bias in the interviewed sample in these two values, which in any case are not of the top values. Thus, we can claim that in this respect, too, the sub - sample was representative of the total sample.

Once the ratings of the values had been obtained, the subjects were asked the following questions: "If you were free to choose and there were no educational or other problems, what occupation would you choose?" "What occupation are you pursuing now?" "In what occupation do you think you might end up, if things do not go as planned or expected?"

These questions were not always phrased in this way, they were suitably adapted if the subjects showed difficulties in answering them. In very few cases, subjects came up with only one occupation or none, in one case. If we did not end up with a

Table 6.1 Medians and Composite Rank Orders of the Ranked Life Values of the Total Sample (N=225), and Means and Rank Orders of the Means of the Rated Life Values (N=67).

| <u>LIFE VALUES</u> | Median Rank | | Mean Rank | | S.D |
|-----------------------|-------------|----|-----------|----|-------|
| 1.A Sense of Accompl. | 6.824 | 7 | 76.06 | 6 | 20.69 |
| 2.A Comfort.Life | 7.545 | 8 | 70.43 | 9 | 19.06 |
| 3.Self-Respect | 5.875 | 4 | 81.19 | 3 | 16.71 |
| 4.Freedom | 1.974 | 1 | 89.56 | 1 | 12.37 |
| 5.Happiness | 5.000 | 2 | 83.09 | 2 | 12.96 |
| 6.Pleasure | 9.472 | 12 | 62.83 | 12 | 21.98 |
| 7.Equality | 5.905 | 5 | 76.74 | 5 | 19.15 |
| 8.Social Recogn. | 8.111 | 10 | 60.20 | 11 | 24.61 |
| 9.Family Security | 8.000 | 9 | 72.58 | 8 | 18.68 |
| 10.Beauty | 10.983 | 13 | 57.50 | 13 | 23.60 |
| 11.True Friendship | 5.453 | 3 | 79.19 | 4 | 16.07 |
| 12.Wisdom | 6.714 | 6 | 73.68 | 7 | 22.05 |
| 13.An Exciting Life | 9.187 | 11 | 69.01 | 10 | 21.55 |

Note:Smaller values of the median show higher ranking

Table 6.2 Medians and Composite Rank Orders of the Ranked Work Values of the Total Sample (N=225) and Means and Ranks of the Means of the Rated Work Values (N=67).

| <u>WORK VALUES</u> | Median | Rank | Mean | Rank | SD |
|-----------------------|--------|------|--------|------|--------|
| 1.Status | 12.722 | 16 | 51.37 | 17 | 29.43 |
| 2.Independence | 4.469 | 2 | 83.73 | 2 | 17.58 |
| 3.Intell.Stimulation | 9.100 | 7 | 72.85 | 5 | 23.38 |
| 4.Originality-Invent. | 6.792 | 5 | 76.67 | 3 | 20.70 |
| 5.Advancement | 10.400 | 10 | 56.74 | 15 | 24.04 |
| 6.Aristic Freedom | 14.028 | 17 | 52.29 | 16 | 29.44 |
| 7.Authority | 15.000 | 18 | 46.06 | 18 | 29.02 |
| 8.Success-Acompl. | 3.630 | 1 | 85.53 | 1 | 15.69 |
| 9.Opport.to Travel | 11.167 | 12 | 59.01 | 14 | 25.86 |
| 10.Help Others | 11.588 | 14 | 64.32 | 8 | 22.57 |
| 11.Make Acquaintances | 11.250 | 13 | 62.65 | 10 | 21.86 |
| 12.Pleasure out.Work | 10.045 | 9 | 62.43 | 11 | 22.42 |
| 13.Salary | 6.000 | 3 | 75.00 | 4 | 20.54 |
| 14.Management | 10.542 | 11 | 60.67 | 12 | 22.20 |
| 15.Working Conditions | 6.937 | 6 | 70.22 | 6 | 20.65 |
| 16.Variety | 11.778 | 15 | 59.77 | 13 | 24.99 |
| 17.Secure,stable Job | 6.219 | 4 | 69.03 | 7 | 26.70 |
| 18.Rel. with Colleag. | 9.667 | 8 | 64.209 | 9 | 21.396 |

Note:Smaller values of the median show higher rankings

number of at least two occupations ranked in order of preference, this part of the interview was not pursued any longer. There were 2 or 3 subjects that gave only two occupations. Some subjects gave more than three because they could not separate the two last possible alternatives. The last alternative was dropped from the analysis. In any case, we always ended up with a ranked order of preferred occupations at some point in the interview. Although the pupils agreed with the final rank ordering, it was the interviewer's impression that in some cases their rankings of the occupations, in terms of preference did not reflect true preferences but perceived likelihood of attainment of an occupation, particularly in the case of the first two occupations, where attainment of the occupation was outside the subject's control. The interviewer did not interfere but left the rank ordering as it was presented by the pupils.

The next step in this part of the interview was to ask the subjects to estimate the instrumentality of each of the ranked occupations in providing or not providing each of the values in the two sets. This was done on two separate sheets of paper that were handed to the subjects. On one page there was the list of the Life Values, in alphabetical order, without the ratings or the rankings of the values, and on the next page a similar list of the Work Values. Next to each list there was space with columns. At the top of each column one of the ranked occupations was written. At the top of the page there were the following instructions: *To what extent do you think that each of the following occupations will provide you with, or will deprive you of the following values?* Then there was the following scale (in

parenthesis are given the instrumentality values to which the verbal anchorings corresponded):

| | |
|---|---|
| Provides me with the opportunity to realise | - Deprives me of the opportunity to realise |
|---|---|

- | | |
|---------------------------------|--------------------------------|
| 1.Provides me completely (+1) | 5.Deprives me a little (-0.25) |
| 2.Provides me very much (+0.75) | 6.Deprives me a lot (-0.50) |
| 3.Provides me a lot (+0.50) | 7.Deprives me very much(-0.75) |
| 4.Provides me a little (+0.25) | 8.Deprives me completely (-1) |

As it was mentioned earlier, the zero point was omitted so that computational problems and issues could be avoided, in the same way that the zero point was omitted from the rating continuum. Subjects did not have any problems with any of the scales. In fact the omission of the zero point made them think harder. In the cases that they could not decide they just put down either a 4 or a 5. This inflated the results in both directions, so it is believed that any effects that might appear were counterbalanced.

6.3 Computing Value Attainment

For each of the ranked occupations a SIV score was computed for each set of values. The SIV score is the sum of the products of Instrumentality X Valence. Valence is the importance of each outcome (of each value in our case), and instrumentality is the degree this outcome is perceived to be connected with the occupation considered; it is a measure of association. The lowest valence could be 1 and the highest 100. The eight instrumentality points were distributed as follows: 1:+1, 2:+0.75, 3:+0.50, 4:+0.25, 5:-0.25, 6:-0.50, 7:-0.75, 8:-1.

Thus the SIV score computed for each occupation for each set of values consisted of the sum of all the products valence x instrumentality for all the values of the set. Two sums were computed for each occupation, one for the Life Values set, and one for the Work Values set. These sums (SIVs) were taken to denote value attainment, i.e. the degree this particular set of values was perceived to be attained in this particular occupation.

Table 6.3 presents Value Attainment results for each of the named occupations, i.e. occupations ranked 1st, 2nd, and 3rd. What is obvious from these results is that in general - across subjects - mean scores appear in a decreasing order in the expected direction i.e. less value attainment is perceived as we go down the ranked order of the three occupations (see also Figure 6.1). What is also apparent is that the standard deviations are also high which signifies a high dispersion of

Table 6.3 Value Attainment under Three Ranked Occupations.

N=60

LIFE VALUES

| Occupation ranked 1st | | Occupation ranked 2nd | | Occupation ranked 3rd | |
|---------------------------------|-------|--------------------------|--------|--------------------------|--------|
| Mean | SD | Mean | SD | Mean | SD |
| 601.53 | 202.4 | 465.13 | 230.58 | 335.43 | 307.69 |
| (F=28.59 DF:59, 120 $p<0.001$) | | | | | |

WORK VALUES

| | | | | | |
|----------------------------------|--------|--------|--------|--------|--------|
| 703.15 | 272.95 | 542.00 | 297.20 | 361.13 | 397.89 |
| (F=24.91 DF: 59, 120 $p<0.001$) | | | | | |

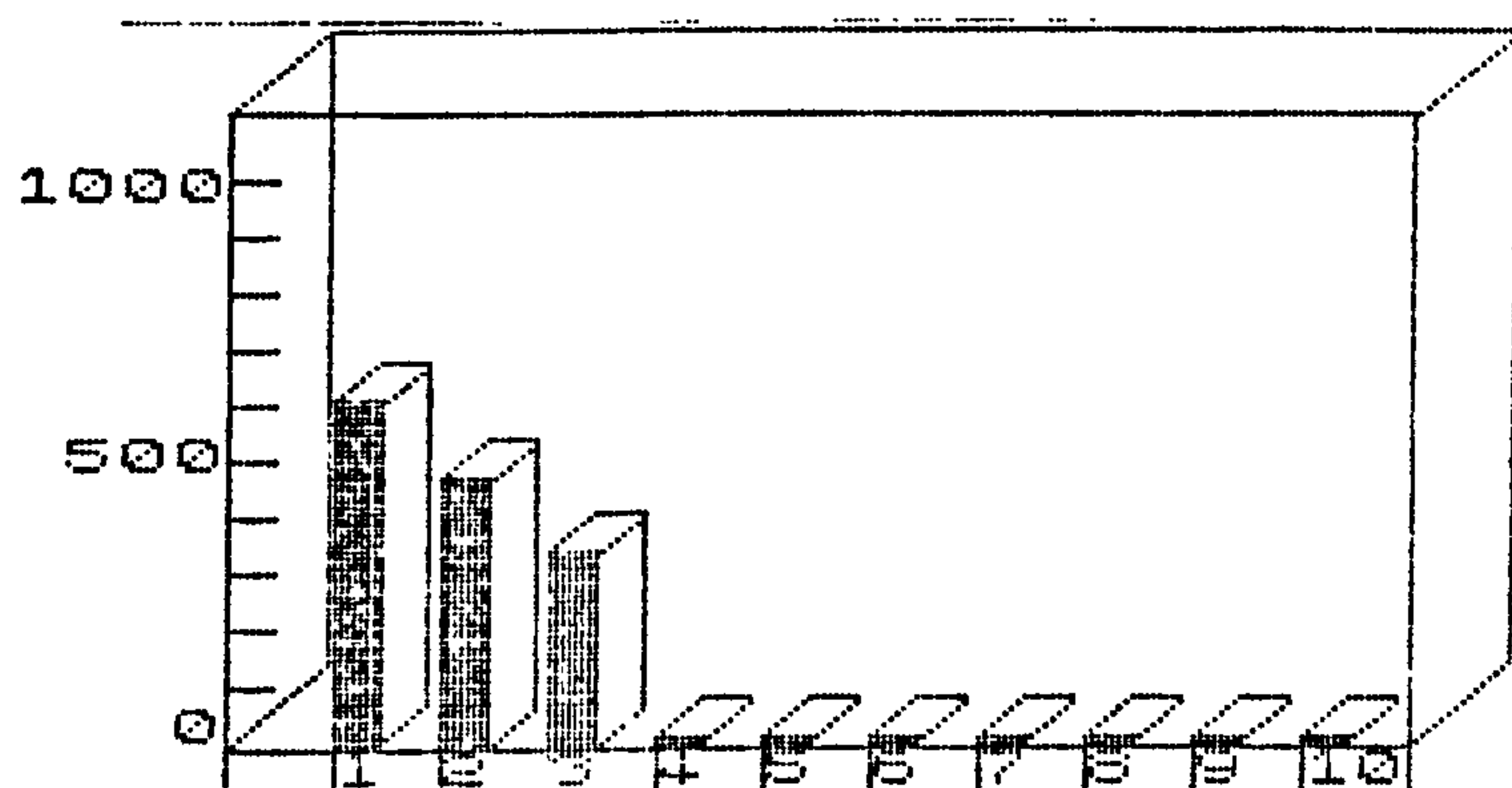
Table 6.4 Instrumentality Means Under the Three Ranked Occupations. N=60

| | Occupation 1 | | Occupation 2 | | Occupation 3 | |
|---------------------------------|--------------|------|--------------|------|--------------|------|
| | Mean | SD | Mean | SD | Mean | SD |
| Life Values | 33.10 | 8.96 | 38.54 | 10.4 | 50.22 | 24.4 |
| (F=27.44 DF: 2, 132 $p<0.001$) | | | | | | |

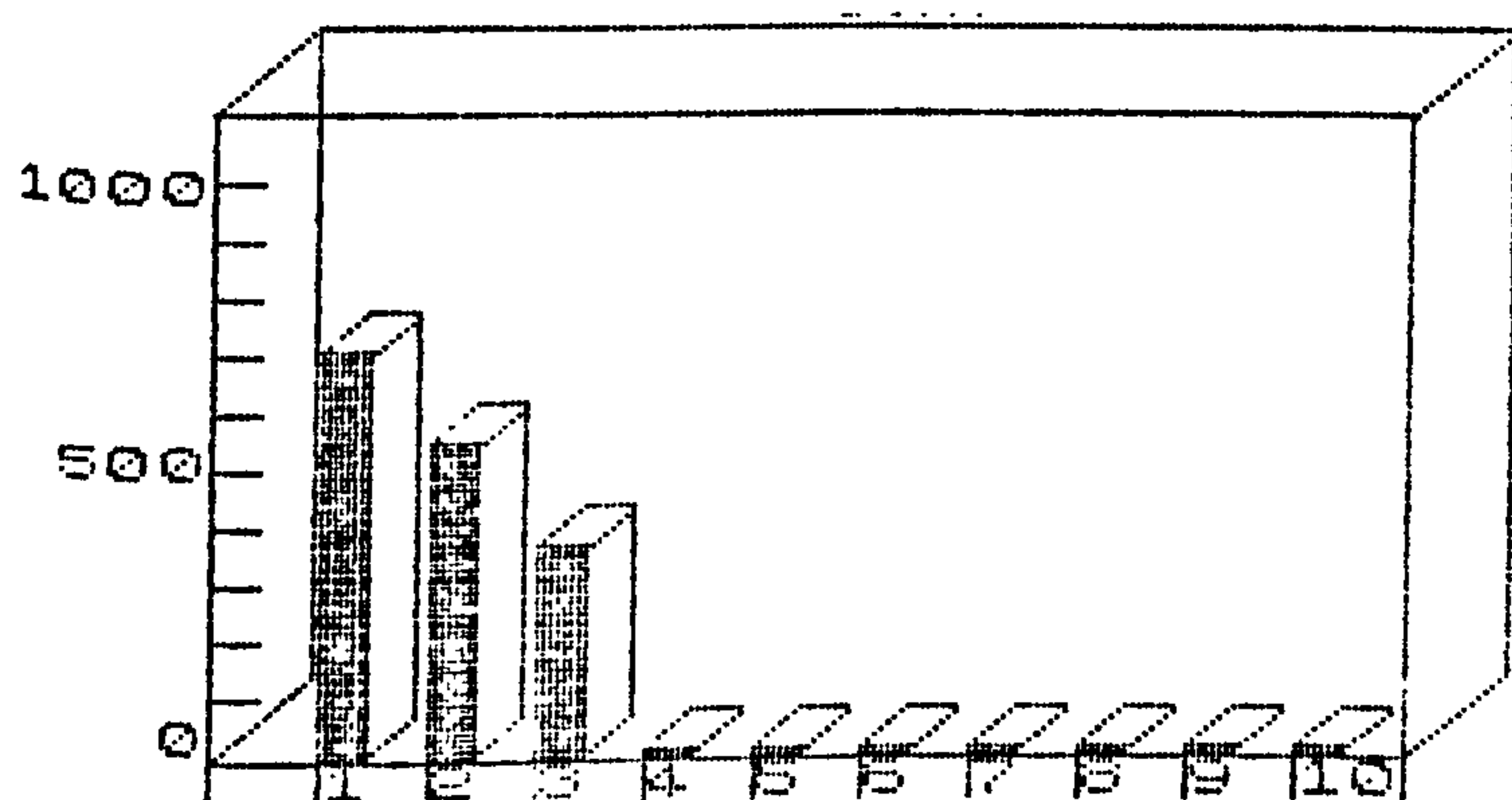
| | | | | | | |
|---------------------------------|-------|------|-------|------|-------|------|
| Work Values | 48.89 | 13.5 | 55.88 | 14.2 | 71.05 | 33.8 |
| (F=23.78 DF: 2, 132 $p<0.001$) | | | | | | |

Note: Higher instrumentality is denoted by smaller arithmetical values.

Fig. 6.1: Value Attainment for Three Ranked Occupations.



LIFE VALUES



WORK VALUES

scores.

If we considered the absolute magnitude of the means we would find support for the hypothesis that more value attainment would be found in the first ranked occupation, and that this value attainment would decrease as we went down the three ranked occupations. The high standard deviations though, would put us into some doubt as to the extent to which this is true in individual cases.

A suitable test for this was considered Friedman's Two-Way Analysis of Variance by Ranks (Siegel, 1956; pp. 166 - 173; SPSS Update p.55). Friedman's test is suitable for k related samples and tests the null hypothesis that the k samples have been drawn from the same population. For each case (row) the k variables (conditions) are ranked and the mean rank for each variable (condition) is computed. A test statistic with a chi-square distribution is then computed. The test compared to the F- Test (Repeated Measures ANOVA) is supposed to be very powerful. In our case Friedman's test produced highly significant results. Thus, in the case of the Life Values the three conditions differed significantly at the 0.001 level of significance (chi-square 43.17 DF 2), and a similarly significant difference was found in the case of the Work Values (chi square 37.71, $p < 0.001$ DF2). As there were still doubts whether this was an effect of the measurement and the test, since if a score is greater even by a single point, the Friedman test gives it a higher rank, we also performed a parametric Repeated Measures Analysis of Variance which also gave us significant differences ($F=28.59$ DF 59,120, $p < 0.001$ for the Life Values, and $F=24.91$, DF 59, 120

$p < 0.001$ for the Work Values).

In the section presenting Vroom's expectancy model of motivation we saw that there is evidence that the instrumentalities alone can offer as good a prediction as the SIV scores. This was also tested with our data and indeed, in this case, as well, it seems that the sums of the instrumentalities in each set can offer the same prediction as the sum of the $I \times V$ scores. Mathematically this is not strange as the SIV scores across conditions contain a constant, the sum of the valences, and what has brought about any difference is the weights represented by the instrumentalities.

Table 6.4 presents the means of the instrumentalities for each set of values under the three occupational conditions. A smaller value in the instrumentality score signifies a higher perceived attainment, due to the coding employed.

A Friedman nonparametric ANOVA shows that these differences in instrumentalities are significant (Life Values: chi square 47.69 DF 2 $p < 0.001$, Work Values: Chi square 38.20 DF 2 $p < 0.001$). A parametric Repeated Measures ANOVA also shows that the difference is significant (Life Values: F 27.44 DF 2, 132 $p < 0.001$, Work Values: F 23.78 DF 2, 132 $p < 0.001$).

In sum, we can say that according to the evidence in our data the motivational model employed distinguished significantly across the three ranked occupations, and in view of this evidence we can conclude that this model, used with the two sets of values, can offer us some kind of prediction of the preferred

occupation.

All the results reported so far concern the across-subjects analysis, i.e. differences across conditions. The only within-subject analysis that we could make with our data was to calculate the frequencies of the predictions if we take subjects one by one (Table 6.5). This will give a better view of how the above results are translated at the individual level. To this end we examined the absolute magnitude of the three SIV scores and we counted the number of times the rank of the score coincided with the rank of the occupation. The weakness in this kind of analysis is that we don't take into account differences between scores, nor the probability of a score coming first or second etc by chance alone. There were a few ties and this is the reason why Ns are unequal.

Life Values

Occupation 1st: 46 out of 65 scores had a clear first rank (70%).

Occupation 2nd: 38 out of 64 scores had a clear second rank (59%).

Occupation 3rd: 42 out of 58 scores had a clear third rank (72%).

Total of ranks to be predicted: 187, predicted 126 (appr. 67%)
(chi square 12.06 p0.01).

Work Values

Occupation 1st 47 out of 64 scores had a clear first rank (73%).

Occupation 2nd 38 out of 63 scores had a clear second rank (60%).

Occupation 3rd 38 out of 59 scores had a clear third rank (64%).

Total of ranks to be predicted: 186, predicted 123 (appr. 66%).

Table 6.5 Frequency Distribution of Predicted Ranks of the
Three Ranked Occupations. LIFE VALUES

| | Actual | N | Predicted | % |
|--------|--------|---------------------|--------------|----|
| | Rank | | in this rank | |
| | 1 | 65 | 46 | 70 |
| | 2 | 64 | 38 | 59 |
| | 3 | 58 | 42 | 72 |
| Total: | | 187 | 126 | 67 |
| | | Chi sq.12.06 p<0.01 | | |

WORK VALUES

| | Actual | N | Predicted | % |
|--------|--------|---------------------|--------------|----|
| | Rank | | in this rank | |
| | 1 | 64 | 47 | 73 |
| | 2 | 63 | 38 | 60 |
| | 3 | 59 | 38 | 64 |
| Total: | | 186 | 123 | 66 |
| | | Chi sq.10.28 p<0.01 | | |

(chi square 10.28 p 0.01)

Approximately 66 percent of the ranks of the occupational preferences can be predicted by the model. In both cases the chi square test of the significance of difference between expected and observed frequencies shows that the difference in the frequencies in each set is significant.

The occupation ranked first can be predicted more frequently than the occupations ranked lower in the case of the Work Values, while in the case of the Life Values it seems that the occupation ranked third can be predicted more often. If we take into account the fact that only the absolute magnitude of the scores was considered for the above analysis, which meant that even a difference of one unit would allocate a different rank, then we should think that a more rigid criterion (e.g. only scores that differed by a SD unit could have been allocated as higher or lower) would have given us significantly fewer predictions.

Our own conclusion is that the model gives a fair amount of prediction but unless we find a way to control for individual differences in the magnitude of scores, both in a within - and an across - subjects design, we cannot accept such results without reservations. The results of this analysis also confirmed our basic hypothesis that more value attainment is perceived for more preferred occupations. This was confirmed by both across subjects and within subjects analyses.

6.4 Values Differentiating the Ranked Occupations.

The same Repeated Measures ANOVA design was used to examine whether the individual value attainment scores, for each value, for each of the ranked occupations, differed significantly. What we actually did was to examine the three I x V scores for each value separately. This was done in order to identify those values from each set that gave value attainment scores (I x V) which differed significantly across the three ranked occupations. In this way we would be able to identify those values that actually distinguished across the three occupational categories, in other words, the values that in their importance or unimportance determined the value attainment perceptions of our sample.

The Analysis of Variance has an advantage over multiple T-tests, which is the next alternative, in that it reduces the possibility of Type I error (Hinkle et al. 1979), and the advantages of the Repeated Measures ANOVA "is that each subject can serve as his own control across a number of conditions, and this permits the experimenter to subtract the effect of individual differences in performance, which are often large" (Snodgrass, 1977 p.258). Thus we can see that any differences in the SIVs are taken into account in the parametric design. The F ratio used in the analysis of variance is the ratio of variance estimate based on variability among the several means of the experimental conditions to a variance estimate based on variability among scores within each of the conditions (Snodgrass, 1977; p.249). In the Repeated Measures ANOVA the variance

due to individual subjects is subtracted, together with the variance due to each condition, from the total variance.

The results of this analysis (Tables 6.6 and 6.7) are very interesting. The first thing that we see, if we look at the significant F values, is a tendency for important (top) values and unimportant (bottom values) to discriminate across conditions, once they have been weighted with the instrumentalities. This tendency is more pronounced in the case of Work Values. The ranks of the values in the tables are the ranks of the means of the values, as they were rated on the 1 - 100 continuum by the interviewed sample. These ranks are in fact very similar to the composite rank orders (ranks) of the rank ordered value hierarchies of the total sample.

The second thing that we notice in Tables 6.6 and 6.7 is that the mean I x V scores appear in decreasing order as we go down the three ranked occupations, which shows how the model "works" in its basic components, too. Some deviations from this (e.g. *Equality* and *Family Security*, in the Life Values set, and *Salary*, *Management*, and *Secure, stable job*, in the Work Values set, can assure us that the rating of the instrumentalities cannot have taken place mechanically, but where the subjects felt that the least valued occupation was offering some rewards, too, they indicated so. None of these values, though, discriminated significantly across occupations, so we cannot say that one particular value appeared to be attained significantly more in the least preferred occupations. The means reported here are simply indications of existing

Table 6.6 Repeated Measures ANOVA of Life Values Attainment Scores (I x V) for Each Value Under the Three Ranked Occupations
N=60

| Mean I x V Score | | | | | | | | | |
|--------------------|----|------|-------------|------|-------------|------|-------------|------|---------|
| Life Values | R | Mean | Occ.1 | | Occ. 2 | | Occ. 3 | | DF2,118 |
| | | Rat. | X | SD | X | SD | X | SD | F |
| Freedom | 1 | 89.5 | <u>51.6</u> | 40.1 | <u>39.5</u> | 41.6 | <u>17.8</u> | 50.0 | 9.84 * |
| Happiness | 2 | 83.0 | <u>67.6</u> | 24.7 | <u>49.8</u> | 31.5 | <u>26.2</u> | 42.9 | 36.03* |
| Self-Respect | 3 | 81.1 | <u>66.2</u> | 24.4 | <u>53.4</u> | 29.4 | <u>45.4</u> | 37.4 | 12.92* |
| True Friendship | 4 | 79.1 | <u>42.9</u> | 28.6 | <u>40.4</u> | 28.3 | <u>34.5</u> | 36.0 | NS |
| Equality | 5 | 76.7 | <u>30.5</u> | 34.1 | <u>19.7</u> | 36.9 | <u>20.8</u> | 40.0 | NS |
| Accomplishment | 6 | 76.6 | <u>60.3</u> | 26.7 | <u>43.9</u> | 27.5 | <u>32.1</u> | 38.1 | 19.66* |
| Wisdom | 7 | 73.6 | <u>47.6</u> | 31.5 | <u>36.9</u> | 29.0 | <u>28.4</u> | 38.7 | 7.20 * |
| Family Security | 8 | 72.5 | <u>42.2</u> | 33.2 | <u>39.2</u> | 29.6 | <u>41.5</u> | 29.5 | NS |
| A Comfort. Life | 9 | 70.4 | <u>43.2</u> | 32.6 | <u>42.9</u> | 25.9 | <u>35.3</u> | 32.4 | NS |
| An Exciting Life | 10 | 69.0 | <u>48.7</u> | 31.3 | <u>32.8</u> | 37.8 | <u>10.1</u> | 45.7 | 18.03* |
| Social Recognition | 11 | 66.2 | <u>49.1</u> | 29.3 | <u>38.2</u> | 32.9 | <u>30.5</u> | 38.2 | 6.98* |
| Pleasure | 12 | 62.8 | <u>29.6</u> | 33.6 | <u>26.0</u> | 28.7 | <u>22.5</u> | 36.9 | NS |
| Beauty | 13 | 57.5 | <u>15.8</u> | 36.4 | <u>5.35</u> | 35.1 | <u>-2.3</u> | 34.7 | NS |

* $p < 0.01$

NOTES

R represents the rank of the value in the value system of the pupils according to the mean rating, which appears in the column immediately on the right.

Mean Rating represents the mean of the particular value in the 1-100 scale.

I x V score is the mean of the instrumentality x valence product. It represents the mean value attainment under each occupational condition.

Table 6.7 Repeated Measures ANOVA of Work Values Attainment Scores (I x V) for Each Individual Value Under Three Ranked Occupations. (N=60)

| Mean I x V Score | | | | | | | | | |
|---------------------|----|------|-------------|--------|-------------|------|-------------|------|---------|
| Work Values | R | Mean | Occ. 1 | Occ. 2 | Occ. 3 | DF | 2,118 | | |
| | | Rat. | X | SD | X | SD | X | SD | F |
| Success-Accomplish. | 1 | 85.5 | <u>69.3</u> | 23.4 | <u>55.6</u> | 34.3 | <u>34.0</u> | 44.0 | 21.32* |
| Independence | 2 | 83.7 | <u>51.3</u> | 36.6 | <u>33.2</u> | 44.2 | <u>10.0</u> | 53.4 | 13.40 * |
| Originality-Invent. | 3 | 76.6 | <u>50.3</u> | 44.1 | <u>34.4</u> | 43.3 | <u>8.9</u> | 52.9 | 12.88* |
| Salary | 4 | 75.0 | <u>48.9</u> | 34.2 | <u>48.8</u> | 25.3 | <u>39.5</u> | 38.0 | NS |
| Intellect.Stimulat. | 5 | 72.8 | <u>47.7</u> | 36.6 | <u>39.3</u> | 36.3 | <u>16.5</u> | 45.9 | 13.05* |
| Working Conditions | 6 | 70.2 | <u>39.9</u> | 33.9 | <u>38.3</u> | 29.2 | <u>28.0</u> | 36.0 | NS |
| Secure Job | 7 | 69.0 | <u>32.2</u> | 40.6 | <u>37.0</u> | 37.1 | <u>35.1</u> | 36.4 | NS |
| Help Others | 8 | 64.3 | <u>36.2</u> | 32.4 | <u>32.5</u> | 29.1 | <u>26.1</u> | 35.9 | NS |
| Relations Colleag. | 9 | 64.2 | <u>40.4</u> | 26.8 | <u>34.8</u> | 29.9 | <u>31.9</u> | 31.1 | NS |
| Make Acquaintances | 10 | 62.6 | <u>41.8</u> | 31.3 | <u>34.9</u> | 27.0 | <u>28.7</u> | 33.6 | NS |
| Pleasure Outs.Work | 11 | 62.4 | <u>38.7</u> | 28.7 | <u>34.5</u> | 25.8 | <u>29.3</u> | 32.4 | NS |
| Management | 12 | 60.6 | <u>30.2</u> | 31.3 | <u>1.5</u> | 26.5 | <u>28.0</u> | 27.4 | NS |
| Variety | 13 | 59.7 | <u>35.7</u> | 32.0 | <u>19.7</u> | 37.4 | <u>-0.6</u> | 38.4 | 19.03* |
| Opportunity Travel | 14 | 59.0 | <u>41.2</u> | 33.1 | <u>20.7</u> | 32.7 | <u>8.9</u> | 41.4 | 13.67* |
| Advancement | 15 | 56.7 | <u>27.8</u> | 32.9 | <u>24.6</u> | 35.2 | <u>20.4</u> | 34.1 | NS |
| Artistic Freedom | 16 | 52.2 | <u>13.4</u> | 40.3 | <u>2.6</u> | 33.3 | <u>-8.5</u> | 35.1 | 7.37* |
| Status | 17 | 51.3 | <u>36.4</u> | 31.3 | <u>28.2</u> | 26.9 | <u>17.1</u> | 28.5 | 15.07 * |
| Authority | 18 | 46.0 | <u>18.3</u> | 26.6 | <u>13.1</u> | 30.3 | <u>10.4</u> | 32.2 | NS |

NOTES

* $p < 0.01$

R represents the rank of the value in the value system of the pupils according to the mean rating which appears in the column immediately on the right.

Mean rating represents the mean of the particular value in the 1- 100 scale.

I x V score is the mean of the instrumentality x valence product. It represents the mean value attainment under each occupational condition.

trends.

The third thing that we notice in Tables 6.6 and 6.7 is the large standard deviations that show great variability of the scores, something that should be expected with this kind of data where the weights (instrumentalities) can take negative values, too, and individual scores can range from +100 to -100. This variability of the scores is also reflected in the means, some of which take negative values (*Beauty*, *Artistic Freedom*, *Variety*).

We see (Table 6.6) that in the set of Life Values *Freedom*, *Happiness*, and *Self-Respect* (ranked first, second, and third, respectively) are the three top values which, weighted with the instrumentalities, give us a significant difference in value attainment (SIV) across the three ranked occupations. Their means show that there is a decreasing tendency (less value attainment) as we go down the three occupations.

This also appears in the two "middle" values that also discriminate significantly: *Wisdom* (ranked 7th), and *A Sense of Accomplishment* (ranked 6th). The three bottom values that discriminate significantly are : *An Exciting Life* (10th), *Social Recognition* (11th), and *Beauty* (ranked 13th). *Pleasure* is the only bottom value that does not differentiate significantly across the three ranked occupations. *Equality* and *Family Security*, finally, are the only values that do not present a perfect decreasing order.

We can make exactly the same remarks for the results of the

Analysis of Variance of the Work Values. The same tendencies appear there as well. Of the set of Work Values the ones that discriminated significantly across the three ranked occupations were *Success-Accomplishment* (ranked 1st), *Independence* (2nd), *Originality-Invention* (3rd), *Intellectual Stimulation* (5th), of the top values, and *Variety, Opportunity to Travel, Status* of the bottom values (ranked thirteenth, fourteenth, and seventeenth, respectively). *Salary* (ranked 4th) of the top values and *Relations with Colleagues* of the bottom values were the only ones that did not differentiate significantly. Finally, *Management* and *Secure job* do not show a perfect decreasing order.

In terms of the data obtained from our sample, we can say in conclusion, that both Life Values and Work Values can be used in order to predict occupational preference, in conjunction with Vroom's model for occupational preference. Both within - subjects and across - subjects analyses showed that more value attainment is perceived in the more preferred occupations. A deeper analysis showed that the values that differentiated significantly across the three ranked occupations were the values most and least valued. The fact that the top values appear to be obtained less and less as we go down from the most to the least preferred occupation is something that is in agreement with our hypothesis that occupational choice can be viewed as a value attainment process. Why this trend should also appear with values that are placed at the bottom of the hierarchy is difficult to explain. We tried to explain it in terms of the instrumentalities. We thought that more negative instrumentalities would be given to the less important values,

particularly in the least preferred occupations. An inspection of the raw data of the three most important and the three least important work values showed that indeed the frequency of negative instrumentalities was higher when less important values were involved, but this was not true only for less preferred occupations but also for the occupations ranked first. As a matter of fact the frequency of negative instrumentality ratings was as follows: 13 - 29 - 55 for the three top Work Values, and for the three ranked occupations, respectively, and 35 - 45 - 64 for the three least important Work Values, again for the three ranked occupations. Similar trends appeared in the case of Life Values. The only plausible explanation that we can offer is that more, or less, important values, i.e. the ones at the top and the bottom of the hierarchy, are rated after more serious thought on the part of the subjects, and thus it is only with these that the differences in SIV scores (value attainment) should be judged and compared. In the case of the less important values there is a tendency for them to be perceived as less attained in the most preferred occupations, too.

This automatically would lead us to the conclusion that in similar research, employment of the top and bottom values, or important and unimportant outcomes, would give more meaningful results than employing a whole set, in which "indifferent" outcomes are also evaluated. In our case, however, inspection of the data showed that employing each subject's 3 top values in computing the SIV score did not improve prediction in terms of the difference in the absolute magnitude of the scores.

7. A Classification of Subjects and Occupations. The Opportunity Structure.

Before we proceed to an investigation of the outcomes perceived to be connected with the three ranked occupations, we must have a closer look at some of the characteristics of the occupations which were mentioned by our subjects. We shall not refer to specific occupations, but to some of the parameters that must have played a role in shaping the specific choices. On the basis of both the material collected during the personal contact with the subjects, and the different impressions that the investigator formed during these interviews the following characterizations were made:

a) Whether the pupil seemed familiar with the world of work. If regardless of his choice, the pupil showed indications that he had clear and realistic views about jobs and the world of work, he was categorized as "having clear ideas about jobs". If his views about the positive and negative rewards of the occupations, the ways occupations can be entered (occupational opportunities, educational requirements etc) were at odds with Greek reality, at least as it was perceived by the investigator, the pupil was classified as "not having clear ideas about jobs".

b) Whether his stated preferences were firm and strongly held as opposed to presenting occupational alternatives with hesitation and uncertainty, or even not being able to present any ideas at all. He was classified accordingly as being "orientated" or "not orientated". Classification as orientated or not was made

regardless of any other criteria of realism of choice etc., i.e. the criteria used for the previous classification.

c) Whether each of the different job alternatives mentioned was "inaccessible" or "idealistic". This characterization referred to the occupation and was made on the basis of the pupils' previous educational performance, and as far as possible on the basis of an objective appreciation of the chances of this particular pupil of entering the occupation in question. This classification was not so arbitrary as it may seem because the educational criteria were more or less fixed, with some possibilities of error when a case was at the borderline, and the criteria of "idealistic" are not subjective when occupations like "astrophysics" or "actor" or "journalist" are involved, within a particular socio-economic context, where some of these occupations are nonexistent or accessible only through special channels. In any case, this categorization was applied only when the situation was clear - cut.

d) Whether some of the occupations were selected precisely because they were more accessible, usually because the way had already been paved in one way or another (father's job, contacts that could secure employment, an existing educational opportunity etc.). This was a pure opportunity structure categorization that referred to specific occupations. Complementary to this measure was another classification of the occupations as "chosen but disliked". These included the cases where the opportunity structure factor was clear but also a dislike had been expressed by the pupil about the occupation presented as an alternative.

7.1 Results

All these categorizations were made so that deeper insight could be gained of the different parameters of choice. In some of these classifications the very idea of choice or preference is negated, but this is precisely what should be pointed out about the necessity for more rigorous methods for such investigations. In our case it was felt that such insight could only be gained through an interview. In any case, these measures were not incorporated in other parts of the research precisely because we cannot deny that there must have been a degree of subjectiveness involved in the characterizations, although the investigator had had a long contact with youths of the age examined here, as he had served as a secondary education teacher for over a decade and had worked with pupils of precisely the same origin. Thus, he may be justified to assume that he could have a more objective appreciation of the educational chances of the pupils.

From the 68 subjects that were classified in the ways presented just above the following results were obtained:

A.CLEAR IDEAS ABOUT JOBS

| | | | |
|-----|----|---------|------|
| NO | 30 | (44.1%) | |
| YES | 38 | (55.9%) | N=68 |

B. ORIENTATED

| | | | |
|-----|----|---------|------|
| NO | 20 | (29.4%) | |
| YES | 48 | (70.6%) | N=68 |

C. INACCESSIBLE OR IDEALISTIC OCCUPATIONS

| Occup. ranked 1st | Occup. ranked 2nd | Occup. ranked 3rd |
|-------------------|-------------------|-------------------|
| 21 (30.9%) | 7 (10.3%) | 3 (4.8%) |
| N=68 | N=68 | N=62 |

D. OPPORTUNITY STRUCTURE CHOICE (Occupation Chosen because more accessible)

| Occup. ranked 1st | Occup. ranked 2nd | Occup. ranked 3rd |
|-------------------|-------------------|-------------------|
| 15 (22.1%) | 36 (55.8%) | 48 (77.4%) |
| N=68 | N=68 | N=62 |

E. OCCUPATION CHOSEN BUT DISLIKED

| Occup. ranked 1st | Occup. ranked 2nd | Occup. ranked 3rd |
|-------------------|-------------------|-------------------|
| 3 (4.4%) | 10 (14.7%) | 18 (29.0%) |
| N=68 | N=68 | N=62 |

If we sum up the above results, we can see that even at the pre - entry stage of the occupational choice process or, even worse, at the stage where no commitments have been made, the impact of the opportunity structure (in our sample and with our own measures) appears to be rather strong. Thus 15 (22.1%) of

the occupations presented as first preferences seem to have been chosen because they are simply available or more easily accessible. The number of opportunity choices goes up as we go down the occupational preferences towards less preferred alternatives (55.8% for the second preference, and 77.4% for the third). In other words more than one in every five first choices in our sample, more than half of the second choices, and more than four in five third choices are choices of convenience reflecting some degree of opportunity grasping. Some of these choices are in fact dislikes. While these dislikes are few in the first two ranked occupations (4.4% and 14.7%, respectively) they rise to almost one in three in the third alternative. It is of relevance here to present another statistic : 9 (13.2%), 10 (14.7%), and 16 (25.8%) of first, second, and third choices respectively, were also Father's job.

Conversely, one third of the most preferred alternatives seem to be inaccessible or idealistic, in other words most probably they will not be realized. This is not unnatural if we consider that our subjects were asked to give first preferences regardless of whether they could be realized or not.

If we look now at the classification of our subjects according to the clarity of their perceptions we find that about 56% of them had clear and realistic perceptions about work and jobs, while 44% of them did not have clear ideas. The fact that one in two did not have such perceptions reflected on both their choices and their perceptions of the outcomes of work that will be reported in the next section. This must have reflected, too, onto their perceptions of value attainment through their

choices. We feel that the prediction offered by the motivational model would have been different for the better or the worse if the subjects had had more accurate knowledge about the outcomes of work. In most of the cases we were struck by the optimism of some of their evaluations of the rewards of work. In any case, realistic appreciation of the association between first order and second order outcomes is not a prerequisite of the model; on the contrary, subjective appreciations are required.

Finally, fewer than one in three pupils had firm ideas about one or two jobs, not necessarily realistic ones, so that they could be classified as "orientated". We believe that this may be the result of the particular educational system that prolonged the uncertainty, preserved the hopes and accentuated speculations about possibilities.

All these things must be borne in mind as we go through the results of the interview, which will be presented in the following sections. Our sample to a large extent was far from having reached vocational maturity and this seems to be largely the result of the educational system among other things, one of which was the dominant role of parents in the choice process.

8. The Meaning of Work

Besides the dimensions that were sought to be examined through the Work Quiz, a number of questions in the interview aimed at investigating some of the meanings that work could have for our sample.

To this end, the first question our subjects were asked was: *"Why do people work?"*. They were allowed to give any answers they wanted. The responses seemed to fall into three broad categories. Results were as follows (N=68):

| | N | % |
|----------------------|----|---------|
| 1. Money/Subsistence | 62 | (91.2%) |
| 2. Personal Growth | 34 | (50.0%) |
| 3. Society Growth | 15 | (22.1%) |

Many subjects gave more than one response, thus the only conclusion we can reach, in terms of the above results, is that our sample almost unanimously agrees that the main reason people work is to make money in order to secure their subsistence. Let us remember the ranking given to *Salary* by the whole sample (3rd). It seems that money is the most salient goal of work, in the perceptions of our sample. Half of our interviewed sample see personal growth as one of the reasons people work. This result should probably be connected with the high ranking (1st) of *Success-Accomplishment*. Finally, only one fifth of our sample view work as a kind of contribution to society.

The importance of work, as viewed by our sample, was further

pursued by the question: *"How important is work in our lives?"*

Almost 90% of the subjects (59 pupils) thought that work was important in our lives. This was followed by the question: *"Why is work important?"* Again subjects were allowed to give as many responses as they liked. The following results were obtained (N=57):

Work is important because it offers:

| | N | % |
|--|----|---------|
| Subsistence/Money | 15 | (26.3%) |
| Subsistence/Personal Growth | 13 | (22.8%) |
| Personal Growth | 12 | (21.0%) |
| Society Growth | 9 | (15.7%) |
| Personal/Society Growth | 5 | (8.7%) |
| Subsistence/Personal/Society Growth | 2 | (3.5%) |
| Subsistence/Society Growth | 1 | (1.7%) |

The material aspects of the rewards of work seem to prevail again in the pupils' responses followed by the perception of work as a means for personal growth. This instrumental perception of work was followed up by the next question: *"Is work an end in itself or a means to other things?"* Of the 60 responses obtained 35 (58.3%) found work to be a means to other things while 25 respondents (41.7%) thought that work was an end in itself. Unfortunately, it had not been foreseen for this question to be followed by another one that would seek their perceptions as to what work can be perceived as a means. We can only speculate on the basis of the previous responses that most

of the responses would have indicated the instrumentality of work in providing the means for subsistence.

Another question, however aimed at contrasting work with other aspects of life. The subjects were asked first if they thought that work was the most important thing in our lives or that other things were more important than work or equally important to work. The overwhelming majority of the respondents (58 or 86.5%) thought that there were other things that were more or equally important to work. These subjects were prompted to mention the things that they considered more important or equally important. The following responses were obtained. Again the subjects were allowed to give more than one answer, but percentages refer to the total number of respondents (N=56) that mentioned something that could be compared to work:

Items mentioned as more/equally important to work

| | N | % |
|--|----|---------|
| Freedom/Independence | 14 | (25.0%) |
| True Friendship | 13 | (23.2%) |
| Wisdom/Maturity | 13 | (23.2%) |
| Happiness/Contentment | 9 | (14.1%) |
| Pleasure/Leisure | 7 | (12.5%) |
| Family Security | 6 | (10.7%) |
| Health | 4 | (7.1%) |
| A Comfortable Life/Financial Welfare | 3 | (5.4%) |
| Self-Respect/Self-Esteem | 3 | (5.4%) |
| A Sense of Accomplishment/Contribution | 2 | (3.6%) |

One fourth of the respondents mentioned *Freedom* as something more/equally important to work. Definitely it is no coincidence that *Freedom* was ranked first by the total sample, in the Life Values set, as it was reported in a previous section. *True Friendship* had also received a very high rank by the total sample (3rd). What is curious though, if we make this kind of comparison, is that *Happiness* that had been ranked 2nd is mentioned here by fewer respondents (14.1%), while *Wisdom*, also mentioned by almost one fourth of the respondents, had received only a sixth position in the Life Values set. In general we can see that the perceptions of the social aspects of life, that we saw prevailing in the ranking of the Life Values, seem to prevail here again over the materialistic aspects (Pleasure, Leisure, A Comfortable Life etc.).

Finally, to the question "Can life be complete without work?" 13 of our respondents (almost 20%) reply positively, a rather high percentage which must have been drawn from those considering work only as a means to other things. This attitude that exists in a considerable part of our sample is further pronounced by the responses to the next question: "Would you work if you didn't have to?" Fourteen of the 66 respondents (21.2%) said that they would not work if they were not obliged to do so.

Summing up this part of the interview, we can distinguish some of the attitudes towards work that seem to emerge from our sample: Work for more than half of the sample is not an end but a means to other things. The monetary and the subsistence

aspects of work seem to be the main reasons why people work followed by perceptions of what it offers to the person (as opposed to society) for his own personal growth. These two perceptions appear to be the aspects that make work important in people's lives. Freedom, Friendship, Wisdom appear to be aspects of life that compete with work in importance in people's lives. Finally about one fifth of our sample do not consider work an indispensable part of their lives. These results must not be irrelevant to the emergence of the "uninvolved" scale in the measurement of Work Salience (Section 5.2).

Could we say after these results that high work salience is a prominent characteristic of our sample? It seems that the answer should be negative. This should not be a surprising result within a cultural context that could never have been characterized by "a protestant ethic". In addition the self-centredness of the average Greek in both his personal and business pursuits is an established fact with the Greeks who, in this respect, have never been characterized by large business enterprises, with the exception of the shipping and commercial sphere where, too, the family scale of the business is also a prominent characteristic. Working hours and working habits in the Greek society could give support to the view that work has never been an obsession with the Greeks, from ancient to present times. It could also be said that the responses of our sample could be pointing to the view that, in the Greek work ethos, work is not perceived as an indispensable part of people's lives but as a means for the provision of the necessities of life and as a necessary prerequisite for the pursuit of other equally or more important ends.

9. Life Values Revisited

Two questions in the interview were aimed at obtaining an indirect measure of Life Values. Again it was felt that a more specific context was needed for an exploration of the value hierarchies of the sample. The first question was: *"What would you like to get in life?"* And the second question: *"What would you like to avoid in life?"* The responses were again classified into categories similar to the Life Values, as far as possible. The results presented here are based on 64 respondents.

What the pupils would like to get in life:

| | N | % |
|--|----|---------|
| A Comfortable Life | 32 | (50%) |
| Family Security | 22 | (34.45) |
| A Successful Job | 19 | (29.7%) |
| True Friendship | 18 | (28.1%) |
| A Sense of Accomplishment/Contribution | 16 | (25%) |
| Social Recognition | 16 | (25.0%) |
| Happiness/Contentment | 15 | (23.4%) |
| Wisdom/Maturity | 14 | (21.9%) |
| An Exciting Life | 8 | (12.5%) |
| Freedom/Independence | 7 | (10.9%) |
| Pleasure/Leisure | 7 | (10.9%) |
| Self-Respect/Self-Esteem | 1 | (1.6%) |
| Good Health | 1 | (1.6%) |

By far the most common outcome, mentioned by half of the

sample was *A Comfortable Life*. What is strange here again is that the corresponding value in the Life Values set was given only an 8th position. Obviously there is a disagreement in the two results which could be accounted for by the higher specificity that has been introduced. In this particular case though, we must refer to semantic meanings again. While the wording was in many cases the same, we gathered from our contact with the pupils that when they referred to a "comfortable life" in this context, they meant, something which is of common Greek usage, a life free of the uncertainties of everyday financial hardships. In the case of the Life Values the "Comfortable Life" cue is further defined as "a prosperous life". Obviously we have two different semantic meanings here, which could explain the difference in evaluations. The same could be said of the high frequency of "A Successful Job" (almost 30%). This should be taken to mean a "Secure Job", although the actual wording used was most of the times "good" or a "successful" job. The second most common outcome (*Family Security*) was 9th in the ranked values. Here we can offer no other explanation for the relative disagreement but that it could probably be related to *Happiness* that was ranked second by the whole sample.

The only outcome that was mentioned often and can be related to a high position in the value hierarchy of the total sample is *True Friendship*. In general, though, we must conclude that this indirect measure of Life Values failed to a large extent to support the measures obtained through the ranking method. If we had to choose we would favour the method employed in the interview, in a much more structured way, because we had the feeling that it gave responses that were more closely related to

real life situations. We should remark once more that measurements operating in a contextual vacuum are bound to contradict context - specific measurements, because the latter can grasp the cognitive interplay of evaluations, something that is most probably a reality in everyday life but not in psychological measurement.

What is also strange is the kind of pattern that appears from the responses to the question: "*What would you like to avoid in life?*" The percentages have been calculated on the number of respondents (N=52).

Things to be avoided in life:

(Answers must be taken as lack of...)

| | N | % |
|-----------------------------|----|---------|
| A Good Job | 15 | (28.8%) |
| True Friendship | 14 | (26.9%) |
| Freedom/Independence | 14 | (26.9%) |
| Accomplishment/Contribution | 11 | (21.2%) |
| Self-Respect | 11 | (21.2%) |
| A Comfortable Life | 10 | (19.2%) |
| Happiness | 9 | (17.3%) |
| Social Recognition | 8 | (15.4%) |
| Family Security | 8 | (15.4%) |
| An Exciting Life | 6 | (11.5%) |
| Equality | 2 | (3.8%) |
| Wisdom/ Maturity | 1 | (1.9%) |

Here, again, we seem to have an indication of the salience

that a need or a value can acquire if it is given in a negative context, something that we shall see again in the following section. Thus, *Freedom* seems to acquire once more the importance that it was assigned by the whole sample in the ranking of the Life Values. Now, if viewed as being threatened, it seems to acquire, along with *True Friendship*, a new salience in the responses.

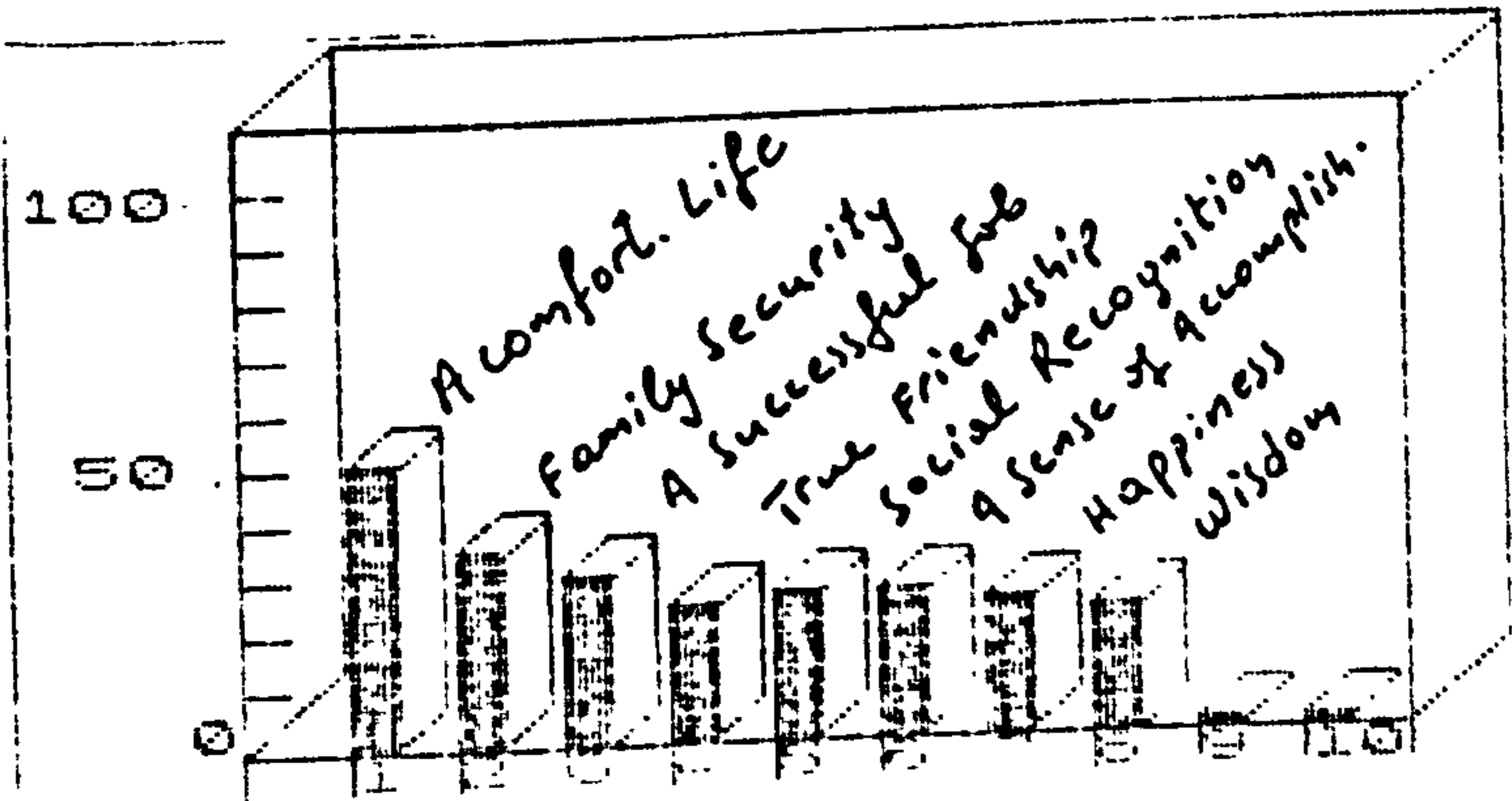
The most common outcome that is wished to be avoided is "not securing a good job". Although the frequency is not high (28.8%) it is the highest among these responses. We are not in the position to know whether, here, as in the previous case, the relatively high occurrence of responses referring to the importance of a job in people's lives, is a result of the responses of the people that indeed found work an indispensable part of their lives or whether this reflects the anxiety for financial security and personal accomplishment.

If we contrast the outcomes mentioned most often (by at least 20% of the sample) in a positive and a negative context (wish to have - fear that may not be had) we get the following picture:

| Wish | | Fear | |
|---------------------|------------|-------------------|------------|
| | N % | | N % |
| A Comfort. Life | 32 (50%) | A Good Job | 15 (28.8%) |
| Family Security | 22 (34.4%) | True Friendship | 14 (26.9%) |
| A Successful Job | 19 (29.7%) | Freedom/Independ. | 14 (26.9%) |
| True Friendship | 18 (28.1%) | Accomplishment | 11 (21.2%) |
| Social Recognition | 16 (25%) | Self-Respect | 11 (21.2%) |
| A Sense of Accompl. | 16 (25%) | | |
| Happiness/Content. | 15 (23.4) | | |
| Wisdom/Maturity | 14 (21.9%) | | |

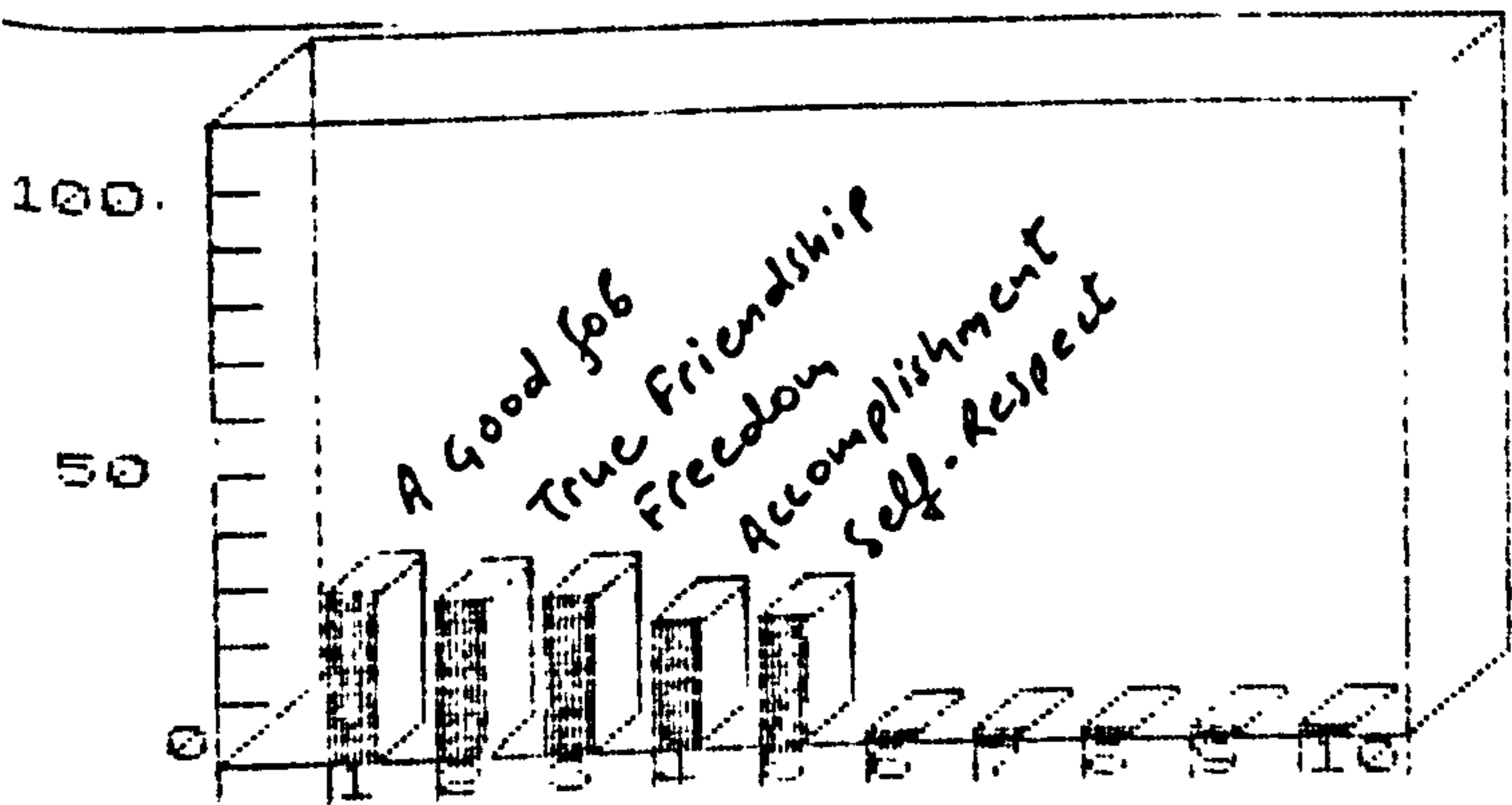
We can discern a tendency for different outcomes to be salient in two different contexts. Thus *Freedom* and *Self Respect* appear only as fears, obviously because they are taken for granted when they are not put in the context of being threatened. *A Comfortable Life*, *Family Security*, *A Successful Job* have to be voiced as needs to be satisfied because it cannot be assumed that they will be satisfied at any rate. This differential perception of needs of wishes and of fears must be the main reason why virtually in all our measurements of this kind we obtained this duality in thinking, something that cannot be measured by a ranking or even rating technique, unless special care has been taken for a suitable design.

Fig.8.1. Frequencies (percentages) of the most common outcomes wished to be attained (WISHES) or wished to be avoided in life (FEARS).



WISHES

I would like to get.
in life:



FEARS

I would like to avoid
not getting/attaining:

10. Rewards of the Occupations

The next part of the interview aimed at investigating the work values of the subjects in specific contexts that were of relevance to the subjects. A good part of the interview was dedicated to investigating the work values within the context of the occupational alternatives they had mentioned. This was done through the investigation of the outcomes perceived to be connected with the occupations that the subjects had mentioned.

10.1 Positive Outcomes Connected with the Three Ranked Occupations.

Subjects were asked to give the positive and negative outcomes connected with each of the three occupations that they had mentioned. This was done by having them answer the following questions: *"What do you think this job can offer you? What problems do you think are connected with this job?"* The actual phrasing of the questions differed depending on the case.

Responses were content analysed and categorised into 21 positive reward categories and 16 negative reward categories. Whenever possible the categories were labelled in a way similar to the work values categories, but this was not always possible, as the subjects gave a variety of responses. Most of the times, however, relating a response to a work value was a straightforward procedure. The classification of the responses into categories was done for descriptive purposes and it cannot be claimed that there is an absolute correspondence between the categorization of the values and the categorization of the

responses, as in the latter there is a fair amount of subjective judgements as to what the true meanings of certain responses were. When an individual is offered the chance to respond freely, he projects into his answers his own cognitive structure which cannot be easily compared to that of other people.

One advantage of the interviewing technique (cf. Kerlinger, 1977) is that it elicits individual - specific responses, and at the same time its chief weakness, when it comes to operation-
lizing the responses, is that *cliche* responses have to be identified and be deciphered within the cultural context. In general, however, the insight offered by the interview cannot be replaced by the neutral measurement of fixed questionnaires.

Table 10.1 presents positive outcomes mentioned for each occupational condition. This is an *a posteriori* classification and it merely shows the frequency of answers classified into each category. The maximum possible frequency for each category is 68 (62 for the third), the number of subjects, but not all the subjects mentioned an alternative. What is of importance here is the relative frequency, i.e. the percentage of the respondents that mentioned something that was later classified into a particular category.

The trends in Table 10.1 show us that there is a tendency for responses to increase or decrease in frequency in the expected direction, i.e. some rewards are mentioned as being given more often in the most preferred occupations, while other rewards are mentioned often in the less preferred occupations. We have here again what we mentioned earlier when speaking of value

Table 10.1 Positive Outcomes (Rewards) Mentioned Under Each of the Three Ranked Occupations.

| Rewards | Occ.1 | | Occ.2 | | Occ.3 | |
|---------------------------------|-------|------|-------|------|-------|------|
| | N=68 | | N=68 | | N=62 | |
| | Abs. | | Abs. | | Abs. | |
| | Freq. | % | Freq. | % | Freq. | % |
| Salary | 39 | 57.4 | 28 | 41.2 | 20 | 32.3 |
| Interest/Content | 26 | 38.2 | 18 | 26.5 | 9 | 14.5 |
| Social Relations | 20 | 29.4 | 12 | 17.6 | 9 | 14.5 |
| Contribution to Society | 17 | 25.0 | 9 | 13.2 | 7 | 11.3 |
| Creativity-Accomplishment | 16 | 23.5 | 9 | 13.2 | 7 | 11.3 |
| Approved by Parents | 15 | 22.1 | 16 | 23.5 | 13 | 21.0 |
| Intellect. Stimulation | 15 | 22.1 | 6 | 8.8 | 4 | 6.5 |
| Easily Accessible/ Contacts. | 12 | 17.6 | 16 | 23.5 | 11 | 17.7 |
| Independence | 12 | 17.6 | 7 | 10.3 | 5 | 8.1 |
| Life Style | 12 | 17.6 | 4 | 5.9 | 1 | 1.6 |
| Social Recognition | 7 | 10.3 | 1 | 1.5 | 2 | 3.2 |
| Status | 7 | 10.3 | 5 | 7.4 | 2 | 3.2 |
| Opportunity to Travel | 7 | 10.3 | 3 | 4.4 | 2 | 3.2 |
| Security/Stability | 6 | 8.8 | 3 | 4.4 | 11 | 17.7 |
| Working Conditions | 6 | 8.8 | 5 | 7.4 | 2 | 3.2 |
| Variety | 6 | 8.8 | 3 | 4.4 | 3 | 4.8 |
| Labour Market (demand) | 4 | 5.9 | 3 | 4.4 | 5 | 8.1 |
| Express Self/Art.Freedom | 3 | 4.4 | 2 | 2.9 | - | - |
| Power-Authority | 2 | 2.9 | 1 | 1.5 | 3 | 4.8 |
| Means to Other Occupations | 2 | 2.9 | 5 | 7.4 | 7 | 11.3 |
| Advancement | 2 | 2.9 | 5 | 7.4 | 3 | 4.8 |

attainment: there are advantages in the preferred alternatives but also other advantages in the less preferred ones.

If we examine some of the differences in frequencies we can see that *Contribution to Society, Creativity - Accomplishment, Intellectual Stimulation, Salary, Independence, Interest* etc. follow the trend of decreasing frequencies, as we go down the rank order of the occupations.

On the other hand, less pronounced opposite tendencies appear in *Easily Accessible / Contacts* (i.e. that this occupation for one reason or another, or through contacts is easily to be gained access to) *Means to Other Occupations* (i.e. that this occupation or educational alternative considered could be the first step that will lead to other steps later) and *Security - Stability*. It is our view that here we can discern some of the influences of the opportunity structure.

Before we move to any other interpretations of Table 10.1 we shall examine the statistical significance of the trends we discern across occupations, i.e. some frequencies present an increasing order while others a decreasing order. The statistical test we employed for the investigation of the significance of the above differences was the Cochran Q Test (Siegel, 1956; pp. 161 - 166, as implemented in SPSS-Update). According to Siegel "...The Cochran Q test for *k* related samples, provides a method for testing whether three or more matched sets of frequencies or proportions differ significantly among themselves. The matching may be based on relevant characteristics of the different subjects, or on the fact that

the same subjects are used under different conditions. The Cochran test is particularly suitable when the data are given in a nominal scale or are dichotomized ordinal information (p.161)." Cochran's Q statistic has an approximately chi-square distribution.

The significance of the differences in trends was tested by the Q test. In the test all items were given a 0 (no) 1 (yes) code, i.e. whether the subject had mentioned or not the particular outcome. Thus, for this analysis, lack of response was also taken into consideration. This may seem rather unorthodox but, in fact, lack of a particular response may have its own significance which is accentuated here. Only differences significant at the 0.01 level of probability will be reported:

Significant Differences in Positive Outcomes Mentioned

| Outcomes | Means | | | Cochran Q | p |
|--------------|-------|-------|-------|--------------|-------|
| | Occ.1 | Occ.2 | Occ.3 | | |
| Intellectual | | | | | |
| Stimulation. | 0.24 | 0.09 | 0.06 | 10.300 | 0.005 |
| Salary. | 0.58 | 0.45 | 0.32 | 9.142 | 0.010 |
| Interest/ | | | | | |
| Content. | 0.38 | 0.25 | 0.14 | 9.657 | 0.008 |
| Life Style | 0.19 | 0.06 | 0.01 | 11.411 | 0.003 |

All the significant differences are in the decreasing direction. Thus Intellectual Stimulation, Salary, Interest /

Content, and *Life Style* are mentioned less and less as we move down the list of preferences. This decreasing trend, as we pointed out is characteristic of most of the categories under which the responses were classified.

If we now look at the absolute magnitude of the frequencies under each occupational category in Table 10.1 we can see that in the occupation ranked first over half of the respondents mentioned *Salary* as a reward. About one third of the respondents mentioned *Interest/Content* and *Social Relations*, while about one fourth mentioned *Contribution to Society*, *Creativity - Accomplishment*, *Intellectual Stimulation*, and *Approved by Parents* as the perceived rewards. It must be pointed out at this point that, although the two measures were different and it is doubtful whether they can be readily compared, some of the rewards mentioned in the occupation ranked first appeared at a top position in the Work Values hierarchy of our total sample: *Salary* was third, *Success-Accomplishment* was first, and *Intellectual Stimulation* was seventh. On the other hand, the top value in the sample's hierarchy *Independence* was mentioned by only 17.6% of the interviewed sample, while in the motivational model it proved to be one of the values that differentiated significantly. Even if we add the frequency of *Express - Self / Artistic Freedom* the frequency is still low (22%). Let us not forget that in the motivational model subjects were asked to rate a list of values, while the results reported here reflect the free responses of the subjects to open ended questions on specific occupations.

The methodological point for this kind of research is still

raised pertaining own versus investigator generated outcomes. In our particular case Salary, one of the top values of our sample, was mentioned quite frequently, while Independence, the top value was not. This is an additional indication that there could be two different standards of values: situation - specific and general. The extent to which the general standard is a result of cultural *cliches* that selectively influence behaviour is something that should be further investigated.

In the occupation ranked second, four out of ten respondents mentioned Salary again, while about one fourth of the subjects mentioned *Easily Accessible / Contacts, Interest / Content, and Approved by Parents*.

Finally, in the occupation ranked third, one third of the respondents mentioned Salary. All the other responses in this category were of frequencies corresponding to less than one fourth of the sample but we must pay attention to the relatively high occurrence of *Easily Accessible, Security Stability, and Approved by Parents*.

10.2 Negative Outcomes of the Three Ranked Occupations.

Table 10.2 presents the negative outcomes mentioned by the subjects under the three occupational conditions.

The prominent characteristic in Table 10.2 is that it is totally different in number of responses from the results in the "positive rewards" table. In the case of positive outcomes there was a total of 423 responses (distributed 236 - 161 - 126) in

Table 10.2 Negative Outcomes Mentioned Under Each of the Three Ranked Occupations.

| Negative | Occ.1 | | Occ.2 | | Occ.3 | |
|--------------------------------|-------|------|-------|------|-------|------|
| Rewards | N=68 | | N=68 | | N=62 | |
| (Lack of..or | Abs. | | Abs. | | Abs. | |
| bad..) | Freq. | % | Freq. | % | Freq. | % |
| Easy Accessibility | 26 | 38.2 | 9 | 13.2 | 4 | 6.5 |
| Working Conditions | 14 | 20.0 | 10 | 14.7 | 14 | 22.6 |
| Objections of Family | 13 | 19.1 | 5 | 7.4 | 5 | 8.1 |
| Labour Market | 8 | 11.8 | 10 | 14.7 | 4 | 6.5 |
| Responsibilities | 5 | 7.4 | - | - | 1 | 1.6 |
| Independence | 5 | 7.4 | 8 | 11.8 | 9 | 14.5 |
| Location | 5 | 7.4 | 4 | 5.9 | 1 | 1.6 |
| Security/Stability | 4 | 5.9 | 4 | 5.9 | 7 | 11.1 |
| Salary | 3 | 4.4 | 12 | 17.6 | 8 | 12.9 |
| Interest | 3 | 4.4 | 11 | 16.2 | 10 | 16.1 |
| Social Environment | 2 | 2.9 | 4 | 5.9 | 4 | 6.5 |
| Accomplishment/ Creativity. | 2 | 2.9 | 1 | 1.5 | 6 | 9.7 |
| Intellectual Stimulation. | 2 | 2.9 | 3 | 4.4 | 2 | 3.2 |
| Advancement | 1 | 1.5 | 2 | 2.9 | - | - |
| Status | - | - | 3 | 4.4 | 1 | 1.6 |
| Variety | - | - | - | - | 2 | 3.2 |

the three ranked occupations, while in the case of the negative outcomes there is a total of 277 responses (distributed 93 - 86 and 78). It is obvious that, when it comes to negative outcomes, subjects are not so prolific in their responses and here again we would distinguish a cognitive dissonance reduction process, because, let us not forget, the occupations were mentioned by the subjects as ranked preferences. Could it be that low frequency of some positive outcome could give us a better clue as to what outcomes are missing in each occupational condition? The low frequency of responses in the third occupation in the Table of positive outcomes (Table 10.1) would support such a view. In other words an outcome that is not mentioned as given is not necessarily reported as not given.

The only significant difference (again using binary codes) was in the lack of easy accessibility of the occupation (Cochran Q 23.312 $p < 0.001$) which presents a decreasing trend from the first occupation to the third. In other words the most preferred occupations are characterized by inaccessibility.

The three negative outcomes that seem to be relatively connected with the occupation ranked first are *Objections of the Family, Working Conditions, and Labour Market* (i.e. bad employment prospects).

In the occupation ranked second the most commonly mentioned problems were *Working Conditions, Salary, Lack of Interest, Lack of Easy Accessibility, Labour Market, and Lack of Independence*. The frequencies though are very low.

In the third occupation *Working Conditions* is mentioned almost as often as in the previous two occupations, whereas *Objections of the Family*, and *Lack of Easy Accessibility* have fallen dramatically in frequency. *Lack of Interest* and *Lack of Independence* show a marked tendency to increase within the limited number of responses obtained.

10.3 Perceived Rewards of the Three Ranked Occupations -

A Discussion

If we consider the frequencies of the positive outcomes under each of the three ranked occupations (Table 10.1) the first thing we shall notice is that the number of outcomes mentioned by at least one fifth of the subjects decreases in number as we go from the most to the least preferred occupation. In the first ranked occupation there are seven different outcomes mentioned by at least 20 percent of the subjects, in the second occupational condition there are four, and in the third condition only two. Only two items are common to all three conditions: *Salary* and *Approved by Parents*. The more important of the two seems to be *Salary* that was mentioned by 57.4%, 41.2%, and 32.3% of the respondents for each ranked occupation, respectively. The fact that *Salary* was also the third top value in our sample shows a consistency in the two measurements.

This concern with the monetary rewards of work had been spotted during the pilot study and a separate measurement was included to examine the importance of *Salary* particularly in relation to *Interest/ Content* which was the second most common outcome (38.2%) mentioned under the first occupational condition.

A continuum was developed with forced choice, on a 5-point scale between salary, interest and environment (see Appendix). The results were:

| | Mean | SD |
|-------------|-------|------|
| Interest | 8.075 | 1.73 |
| Salary | 5.164 | 1.92 |
| Environment | 4.672 | 1.87 |

We can say that in terms of these results our subjects, if forced to choose between pay and interest will choose the latter. Environmental conditions of work (installations etc.) seem to be less important.

About one fifth of our sample seems to be concerned with parental approval concerning occupational choices, something that is not at odds with the similarity in value systems between parents and sons that we saw in the previous section. We believe that this particular concern which was voiced by at least one fifth of our subjects is a cultural characteristic that has to do with the closely knit Greek family which has only recently started coming out of the extended family pattern.

Vassiliou (1969), writing of the Greek family, says that "...parent-child interaction as revealed by role perception includes intense affect, helpful intervention on the part of parents, and strong admiration. Also the parent - child roles in Greece involve greater friendship and less rejection than in America" (p.125). And he continues, always referring to the Greek family: "Interests become more family than individual interests. There is, strictly speaking, no individual achievement. The aspired achievement of any member becomes a family matter. It is expected to raise the whole family up to higher socioeconomic levels" (p.126). This last remark in

particular shows why parental approval is so important for some of our subjects. Similar views are presented by Katakis (1984) in her study of the developments in the Greek family within the life-span of the last three generations.

Another outcome of rather specific nature, mentioned by 23.5% of the respondents for the second ranked occupation, and as a problem by 38.2% of the respondents for the first ranked occupation, has to do with *Accessibility* of an occupation or lack of it. The main contexts in which this outcome was mentioned were: a) in relation to educational achievement, i.e. admission into a higher education institution and b) existing occupational opportunities, either in the family, or through friends and contacts. Pulling strings to find employment was something not uncommon, at least at the time. These two different kinds of responses were pooled together into the same category. As for the educational aspect of it an independent measure was developed by the investigator, on the basis of the past performance in the examinations of the pupils of our sample, and on the basis of the previous year's examination results. According to this criterion it was estimated that half of the sample (47.6%) had some chances of being accepted into a higher education institution (not necessarily of university level). In fact, of the 54 pupils contacted a year later 29 (54%) had been admitted into a higher education institution. It is not easy to make a direct comparison but if we consider that 38.2% of our sample mentioned the inaccessibility of the first occupation we can see that the pupils' perceptions in this respect were not far from reality.

Finally, the fact that *Social Relations* as a positive outcome under the first occupation was mentioned by 29.4% of the pupils should perhaps be connected with the relatively high position of *Relations with Colleagues* in the Work Values hierarchy of our sample (eighth of 18) and the high position of *True Friendship* (third) in the Life Values hierarchy. Similarly, *Working Conditions* that was sixth in the Work Values hierarchy was mentioned as a problem by 22.6% of the pupils for the occupation ranked first. In fact it was the only item that was mentioned by more than one fifth of the respondents in the negative outcomes category of the occupation ranked third.

In sum, we can say that the two different measures, the rank ordering of the values in a contextual vacuum, and the importance of some values, as it appears from the frequency of the mentioned outcomes for the three ranked occupations, did not prove to be irrelevant. But the situation was not such that it could permit us to speak of a direct relation. On the contrary, there are some indications that at some points the two measures take their own separate ways.

But before we proceed to a discussion of the points of difference between the two independent measures let us examine first the results of an additional indirect measurement of values acquired through some more questions in the interview.

11. The Rewards of Work in General Contexts.

Nine questions in the interview aimed at eliciting the perceived positive and negative outcomes of work in general. These questions were asked in an abstract setting, not within the framework of specific occupations, as was the case with the rewards examined in the previous section.

11.1 The Positive Rewards of Work

Six questions were aimed at eliciting the perceived positive outcomes of work. Table 11.1 presents the responses to the six questions as they were classified in categories. The first two questions ("If you were offered two similar jobs which one would you choose?" and "If two different companies/ organizations offered you the same job which one would you choose?" - Questions A and B in Table 11.1) were aimed at measuring the interplay of *Interest/ Content* with *Salary*, which had been assumed to be key factors in occupational choice. In the pilot study it had been observed in the discussions with the subjects that interest was mentioned selectively. Thus the question about being offered two similar jobs with the added explanation that the working conditions and administration etc. were assumed to be the same, but not the content of the job, was expected to control for some of the outcomes connected with the setting and the working conditions.

Interest and *Salary* received equal numbers of responses. Slightly more than half of the sample mentioned one of these two outcomes or both (55.4% and 53.8% respectively), which cannot

Table 11.1 Positive Outcomes Mentioned in Response to the Following Questions:

A: If you were offered two similar jobs which one would you choose?

B: If two different companies/organizations offered you the same job which one would you choose?

C: What makes a job satisfactory?

D: What would you like your job to offer you?

E: What would make you accept a job?

F: What aspects of work are you looking forward to?

| | A | B | C | D | E | F |
|---------------------|------|------|------|------|------|------|
| No of Respondents: | 65 | 68 | 66 | 68 | 68 | 67 |
| | % | % | % | % | % | % |
| Interest | 55.4 | - | 30.3 | 30.9 | 66.2 | 1.5 |
| Salary | 53.8 | 66.2 | 68.2 | 85.3 | 77.9 | 43.3 |
| Advancement | 20.0 | 14.7 | 7.6 | 11.8 | 13.2 | 3.0 |
| Success/Accompl. | 18.5 | 5.9 | 33.3 | 45.6 | 29.4 | 44.8 |
| Relations/Colleag. | 13.8 | 35.3 | 30.3 | 27.9 | 13.2 | 22.4 |
| Working Conditions | 7.7 | 14.7 | 13.6 | 8.2 | 2.9 | 1.5 |
| Independence | 7.7 | 5.9 | 24.2 | 29.4 | 11.8 | 11.9 |
| Secure Job | 6.2 | 38.2 | 7.6 | 5.9 | 7.4 | - |
| Management | 4.6 | 19.1 | 13.6 | 2.9 | 2.9 | 3.0 |
| Status | 4.6 | 1.5 | 3.0 | 1.5 | - | - |
| Help Others | 3.1 | 7.4 | 10.6 | 14.7 | - | 13.4 |
| Authority | 3.1 | - | 3.0 | 4.4 | - | 3.0 |
| Opportunity/Travel | 1.5 | - | 3.0 | 5.9 | 2.9 | 1.5 |
| Acquaintances | 1.5 | - | 3.0 | 14.7 | - | 16.4 |
| Pleasure | 1.5 | 1.9 | 9.1 | 14.7 | 5.9 | 4.5 |
| Intel. Stimulation | 1.5 | - | 9.1 | 10.3 | 5.9 | 13.4 |
| Originality/Invent. | 1.5 | - | - | 4.4 | 2.9 | 4.5 |
| Variety | 1.5 | 2.9 | 7.6 | 7.4 | 2.9 | 7.5 |
| Location | - | - | - | - | 1.5 | 16.4 |
| Artistic Freedom | - | - | - | 1.5 | - | - |

allow us to suspect of any differences. Yet, as we have already said, a separate measurement showed *Interest* to be rated higher by our sample. The next two outcomes were *Advancement* (13 subjects, 20.0%) and *Success-Accomplishment* (12 subjects, 18.5%).

The next question ("If two different companies/organizations offered you the same job, which one would you choose?" -B in Table 11.1) was controlling for interest because it was pointed out to the subjects that the two jobs were supposed to be identical in content; it was the employer that differed. The most common response, by far, was *Salary* (66.2%) followed by *Secure, stable job* (38.2%) and *Relations with Colleagues* (35.35%).

The next question (Question C in Table 11.1): "What makes, in your opinion a job satisfactory?" was far more general. Again *Salary* was by far the most commonly mentioned outcome (68.2%) followed by (prospects for) *Success-Accomplishment* (33.3%), (good) *Relations with colleagues* (30.3%), *Interest* (30.3%), and *Independence* (24.2%).

The next question (D in Table 11.1) was more specific in that it referred to the subject's own aspirations ("What would you like your job to offer you?"). Responses were similar to the ones obtained with the previous questions: *Salary* was almost unanimously mentioned this time (85.3%), followed by *Success-Accomplishment* (45.6%). The fact that both outcomes were mentioned more frequently than before could be attributed to that this question allowed them to give their own perceptions

unmediated by possible social desirability effects. The next most common responses to the same question were *Interest* (30.9%), *Independence* (29.4%), and *Relations with Colleagues* (27.95%).

Question E ("What would make you accept a job?") was again person - specific. Salary was again the most common response (77.9%) followed by *Interest* (66.2%) and *Success- Accomplishment* (29.4%).

When we turned again to a rather more general question (Question F in Table 11.1): "What aspects of work are you looking forward to?" - With the added explanation that soon they would be joining a new world, the world of work, what aspects of it were they looking forward to? - the responses were dispersed again. It could be that this particular question did not serve as a good stimulus. In any case, Salary was mentioned, again by 43.3% of the respondents, *Success - Accomplishment* by 44.8%, but this time the runner up was again *Relations with Colleagues*.

In summary, the responses to each question given by at least one fifth of the sample were:

A: If you were offered two similar jobs which one would you choose?

| | |
|-------------|---------|
| Interest | (55.4%) |
| Salary | (53.8%) |
| Advancement | (20.0%) |

B: If two different companies/organizations offered you the same job which one would you choose?

| | |
|----------------------|---------|
| Salary | (66.2%) |
| Secure job | (38.2%) |
| Relations/Colleagues | (35.3%) |

C: What makes a job satisfactory?

| | |
|------------------------|---------|
| Salary | (68.2%) |
| Success/Accomplishment | (33.3%) |
| Relations/Colleagues | (30.3%) |
| Interest | (30.3%) |
| Independence | (24.2%) |

D: What would you like your job to offer you?

| | |
|------------------------|---------|
| Salary | (85.3%) |
| Success/Accomplishment | (45.6%) |
| Interest | (30.9%) |
| Independence | (29.4%) |
| Relations/Colleagues | (27.9%) |

E: What would make you accept a job?

| | |
|------------------------|---------|
| Salary | (77.9%) |
| Interest | (66.2%) |
| Success/Accomplishment | (29.4%) |

F:What aspects of work are you looking forward to?

| | |
|------------------------|---------|
| Success/Accomplishment | (44.8%) |
| Salary | (43.3%) |
| Relations/Colleagues | (22.4%) |

These results should be compared with the results of the perceived positive and negative outcomes that were mentioned for the three ranked occupations, and with the value hierarchies that resulted from the rank ordering, but before we proceed to this we must examine the results of the questions aimed at eliciting perceived negative aspects of work.

11.2 The Negative Rewards of Work

Three questions were aimed at eliciting pupils' perceptions of the negative outcomes connected with work. Results are presented in Table 11.2. The three questions were: a) "What would make you change your job?" (Question A in Table 11.2); b) "What would make you reject your job?" (B in Table 11.2); and c) "What aspects of work, in general, do you find annoying?" (Question C in table 11.2).

The most common reasons perceived by our sample to lead to a job change are: (bad) Salary (58.8%), (lack of) Interest (43.1%), (bad) Management (23.5%), and (bad) Relations with Colleagues (23.5%). Close behind, mentioned by slightly less than one fifth of the sample, are lack of opportunity for Advancement (19.6%), and lack of opportunity for Accomplishment (17.6%), as well as lack of Variety (17.6%).

Almost similar reasons are offered for the rejection of a job that is offered: lack of Interest (48.5%), bad Salary (44.1%), bad Relations with Colleagues (26.5%), and lack of Variety (20.6%).

Finally, when we go to a general question again, Question (C) the picture changes: the aspects of work that are found to be annoying are bad Management (56.9%), lack of Independence (38.5%), bad Working Conditions (30.3%), and again bad Relations with Colleagues (24.6%).

In summary, the most common responses to the three questions

Table 11.2 Negative Outcomes Mentioned in the Interviews in Response to the Following Questions:

A: What would make you change your job?

B: What would make you reject a job that you were offered?

C: What aspects of work do you find annoying?

(Outcomes must be taken in their negative meaning, ie "lack of.. bad...")

| | A | B | C |
|---------------------------|------|------|------|
| No of respondents | 51 | 68 | 65 |
| | % | % | % |
| Salary | 58.8 | 44.1 | 4.6 |
| Interest | 43.1 | 48.5 | 3.1 |
| Management | 23.5 | 14.7 | 56.9 |
| Relations with Colleagues | 23.5 | 26.5 | 24.6 |
| Advancement | 19.6 | 8.8 | - |
| Success-Accomplishment | 17.6 | 14.7 | 12.3 |
| Variety | 17.6 | 20.6 | 15.4 |
| Working Conditions | 13.7 | 7.4 | 30.3 |
| Pleasure | 5.9 | 4.4 | 7.7 |
| Independence | 5.9 | 11.8 | 38.5 |
| Intellect. Stimulation | 3.9 | 4.4 | 4.6 |
| Originality/Invention | 2.0 | 1.5 | 1.5 |
| Help Others | 2.0 | 1.5 | 1.5 |
| Acquaintances | 2.0 | - | - |
| Status | - | 1.5 | - |
| Secure Job | - | 4.4 | - |
| Location | - | 2.9 | 1.5 |

aimed at eliciting the negative outcomes of work were:

A:What would make you change your job?

| | |
|---------------------------|---------|
| Salary | (58.8%) |
| Interest | (43.1%) |
| Management | (23.5%) |
| Relations with Colleagues | (23.5%) |

B:What would make you reject an offered job?

| | |
|---------------------------|---------|
| Interest | (48.5%) |
| Salary | (44.1%) |
| Relations with Colleagues | (26.5%) |
| Variety | (20.6%) |

C:What aspects of work do you find annoying?

| | |
|---------------------------|---------|
| Management | (56.9%) |
| Independence | (38.5%) |
| Working Conditions | (30.3%) |
| Relations with Colleagues | (24.6%) |

11.3 The Perceived Negative and Positive Outcomes of Work. A Discussion.

We examined the rewards connected with work under two different conditions. In the first condition we asked subjects to give their views about the perceived outcomes of the occupations they were considering - the three ranked occupations. The second condition was nonspecific: we asked some general questions about work without direct reference to specific occupations. In each of these two conditions we examined two sets of rewards, positive and negative.

Two different topics arise from the results presented so far: a) The relation of the results, obtained through open ended questions, to the value measurements obtained through the rank ordering of values, and closely connected to that the topic of investigator-generated versus subject-generated outcomes; b) The topic of the differential manifestation of values in specific situations.

In the section where we examined the perceived rewards of the three ranked occupations we saw that Salary and Interest/Content were by far the most common outcomes mentioned. Interest had not been included in the values list because it is assumed to be a separate dimension (Rokeach, 1973; and cf. Smith, 1963; Lorr et al., 1973). As such it was measured separately and, as we saw, it received a higher rating than Salary. Salary was, as we saw, one of the top values (third) in the value hierarchy of our subjects. Similarly, other top values like Success - Accomplishment, Working Conditions,

Secure, stable Job, Independence, Relations with Colleagues, if we take the eight most important work values, appeared in the subjects' responses, in one context or another. *Advancement* (10th in the hierarchy) was mentioned once by ten subjects, in answer to the question: "Between two similar jobs which one would you choose?", i.e. in a context that allowed less important outcomes to be mentioned. Of the less important values of our sample only *Management*, and *Variety* (11th and 15th in the value hierarchy, respectively) appeared to be important in negative contexts ("change job" and "reject job", respectively).

One outcome mentioned as a reward of work that can be related to a top Life Value was *Social Relations*, mentioned by one third of our sample as a positive reward. It can be related to *True Friendship* which was third in the Life Values hierarchy.

As a conclusion we can say that despite the dissimilarity of measures the interview reconfirmed the value hierarchy, as it had emerged from the rankings of the Work Values. We can claim that it gave additional evidence that occupational choice can be viewed as a value attainment process.

One problem that arises, however, is whether measurements like the ones obtained from ranking of investigator - generated lists can be effectively used for research connected with occupational choice. This topic is directly connected, too, with expectancy theory, as we saw in the respective section. In our categorization of the responses we had to include a few items that could not be readily related to the values lists. These

were subject-generated outcomes, a few of which appeared to be quite important for our sample. These were the responses that had to do with parental approval of choices, the easy or difficult accessibility of the occupations and the situation of the labour market. These are situational factors which cannot be neglected, and which vary from group to group and between particular socio-economic structures. These factors emerged only when the subjects were referring to specific occupational conditions, and not in general contexts. In our case, it was an omission that these factors had not been spotted during the pilot studies, so that they could be incorporated as separate measures in the study, in a way that would have allowed a better investigation of the importance of these factors and their impact on perceptions and decisions.

In sum, the sample-specific and culture-specific situational factors that appeared in our study were parental approval, and labour market restrictions on occupational choice. These two factors appeared to be important only in specific contexts, which in our case were the occupations the subjects were considering, and they did not seem to play an important role when the subjects were referring to general, nonspecific contexts.

This constitutes one aspect of the specificity of value measurements which is our next topic.

By specificity of values we mean that regardless of the importance of a value in a measured value hierarchy, this value can be evoked as a motivator by different stimuli. Thus, we can

have important values that do not motivate the person to appropriate responses because the need hierarchy has changed. Conversely, we might have values at a lower position in the hierarchy that can be the chief motivators under certain circumstances. Rokeach views values as the cognitive representations of needs and he assumes that they are "enduring beliefs". He adopts, however, an animalistic definition of needs and thus he avoids discussing the possible interplay between the restructuring of need hierarchies and, in consequence, of value hierarchies.

We believe that our data would give some support to an examination of occupational choices within the framework of Herzberg's (1959; 1966) two - factor "Motivation - Hygiene" theory. Herzberg examining job satisfaction found that five factors stood out as determiners of job satisfaction: *Achievement, Recognition, Work Itself, Responsibility, Advancement*. He called the "satisfier" factors *motivators*, since his findings showed that "they are effective in motivating the individual to superior performance and effort" (1966, p. 74). Another set of factors, the "dissatisfiers" are involved only in job dissatisfaction, in their absence, and they are rarely involved in events that lead to positive job attitudes. The major "dissatisfiers" were *Company Policy and Administration, Supervision, Salary, Interpersonal Relations, and Working Conditions*. Herzberg defines the concept of "dissatisfiers" further: "Since the dissatisfier factors essentially describe the environment and serve primarily to prevent job dissatisfaction, while having little effect on positive job attitudes, they have been named the hygiene factors." (p. 74). The

hygiene factors lead to job dissatisfaction as a result of the need to avoid unpleasantness, while the motivators lead to job satisfaction because of the need for growth or self - actualization.

Our findings would give support to a similar distinction of the perceived outcomes of entering an occupation. It seems that needs are viewed as being differentially satisfied, depending on the psychological context within which work is viewed. Different needs become more, or less, prominent depending on a variety of factors. Some of these could be the attainability of the job, whether we are examining the job from a rejection or adoption point of view, and whether it is a compromise choice, a more or less ideal preference, or an expected possibility. In addition, responses differ when we are called to examine work and job alternatives in a general context or in a specific, situation - bound, context. In the former case a generalized need/value hierarchy is aroused, in which higher level values are mainly involved. Conversely, in a specific context, a more realistic evaluation shows that not all high level priorities can be satisfied and thus an alternative set of priorities is aroused which can include some of the top values but also may employ values of lower priority.

A comparison of the frequencies of the outcomes mentioned in response to the different questions in the interview, and in particular of the paired questions (e.g. Accept - Reject a job, Aspects looked forward to, or aspects that are expected to bring annoyance etc.) gave us three distinct sets of values that were employed differentially. *Success - Accomplishment* and *Salary*

appeared as distinct satisfiers, while *Management*, *Variety*, and *Working Conditions* appeared as dissatisfiers. On the other hand, *Advancement*, *Independence*, and *Relations with Colleagues* did not follow a distinct pattern. The same was true for *Interest* which appeared equally often as a satisfier and as a dissatisfier.

The nature of our data do not offer themselves for a further analysis, but let us suggest at this point that it is worth pursuing this issue more in future studies because this could serve, if it is true, in the psychological analysis of the kind of events put forward by sociologists as "opportunity choices". In other words, this could bridge the gap between macroscopic sociological analysis and psychological analysis concentrating on the individual level, because it would show how socio-economic events come to be processed by the individual's cognitive structure.

The evidence from our data would suggest that adoption of externally regulated events is effected by invoking differential sets of values which seek attainment. This could also explain how cognitive dissonance reduction is effected: different sets of values are being employed in the pre-dissonant stage from the ones employed when dissonance reduction is taking place.

12.A Follow Up

The greater part of this study was dedicated to how Work and Life Values could predict occupational preference. We saw that values employed in conjunction with Vroom's motivational model could give us a satisfactory degree of prediction. In our research we used the "preference" model because we had assumed that it would be more suitable for our subjects who were in a phase where they were considering different occupational and educational alternatives but at that particular point they would not be required to make any decisions.

Preference does not necessarily mean final choice, as a good many other factors are involved before choice behaviour is manifested, and in particular factors that are outside the individual's control. In our case a factor that would be decisive was the examination results which would determine what our pupils would be doing a few months after the research. However, an attempt was made to investigate the extent to which our measures could be related to real life situations.

Fifty four of our subjects were contacted again approximately two months after the results of the examinations had been announced. A few of our subjects had failed the examination altogether, which meant that they would have to take it again for their secondary education qualification. Others had just failed to collect the required marks for entrance into a Higher Education institution. A few had not even applied for the schools that they had mentioned in the interview, opting for easier alternatives.

Twenty five of the 54 subjects, about 46%, had not been accepted into a Higher Education institution because of failure or inadequate performance in the examination. Fifteen of these subjects were working, either full time or part time, and most of them stated that they were preparing for a resit of the examination the following year, thus denoting persistence in their aims. What is of importance, though, is that only nine of these fifteen working subjects had mentioned a job (and not necessarily the job they were doing at the moment) as one of the alternatives considered during the interview. Only one subject had put down entering employment as a first choice, and another one as a second choice. In both cases, it was father's business to which they were referring.

Twenty nine (53.7%) of the subjects that were contacted had gained entrance into some Higher Education institution. Seven of these (13%) were attending colleges that were irrelevant to their choices, because as we mentioned earlier, they had the right to put down in their applications a large number of different colleges for which they wanted to be considered. As a result they had been allocated to a college of which most probably they had not heard before. What is of interest is what happened with the remaining 22 subjects who had been accepted to a college that had been mentioned in the interview as a first, second or third choice.

Of these 22 subjects 11 were in the college that corresponded to their first expressed preference, i.e. in the educational alternative that had been ranked first in the interview, 7 in the college that corresponded to their second ranked alternative and 4 in the college that corresponded to their third ranked alternative. All of the 11 expressed first preferences that eventually became actual entries had been predicted by the model

when used with the Life Values set, i.e. they had provided the highest value attainment score (highest SIV), and 8 when used with the Work Values set. In other words, the Life Values set eventually gave a better prediction of actual behaviour. The only evaluation we can make of the fact that 11 more of our subjects had ended up in one of the alternatives that they had ranked as second or third preferences is that in those cases, too, we had dealt with real life alternatives. The remaining cases, i.e. those pupils that had succeeded in none of the ranked educational alternatives, cannot actually be accounted for as not predicted by the model or being irrelevant to actual behaviour, because most of the subjects in this category stated persistence in their aims (i.e. intention to take the examination again the following year).

If we want to estimate how relevant to actual life the occupations considered were, we must take the 22 subjects that ended up in a college that they had mentioned and to these we can add, with some reservations, the nine pupils who had mentioned getting a job as an alternative, and were actually working. We end up with a total of 31 (57%) who were found in one of the alternatives considered. But on the other hand an approximate 50% of our sample (if we take out those working in jobs that they had not mentioned) were in a state of uncertainty, still pursuing their stated preferences, or in the process of opening up routes other than the ones they had mentioned a few months before. It is difficult to say, without having them followed up further, whether this could be labelled the "opportunity structure" sample. The only fact is that the majority of those that had failed were claiming that they would try their luck with the examination once more, but not necessarily for the colleges that they had mentioned.

One conclusion that we can reach at this point is that such

measures of preferences or choices will always have the disadvantage of being corrupted by the interplay of hopes and reality. We can always have a fair degree of prediction, and in many cases a fair amount of explanation, but our view is that we are a long way from measuring real life situations. And this, because the impact of social, educational, economic, even personal events will come to bear heavily on individual behaviour, thus rendering prediction of actual behaviour difficult, if not impossible in some cases.

We would suggest that prediction could be feasible in clear-cut situations where structural factors have been processed by the individual and are thus represented in his cognitions, or in cases that ability allows scope for a wide range of choices, but not in cases where the individual has not yet come to terms with reality and is floundering between realistic and unrealistic alternatives. This was the case with those of our subjects who were considering academic alternatives when their previous academic performance should prohibit such thoughts. But even among those there were a few that performed beyond prediction.

From our experience with young people of this age, we would predict that the 50% of our sample who were still in a state of uncertainty would drift little by little into different jobs, few of them into the educational courses they were pursuing, and some others into totally irrelevant courses or training.

We would suggest here that models aiming at the prediction of choices must be used in situations where actual performance is

in fact more within the individual's control than contingent on outside factors, as in the latter case the concept of choice is ridden by ambiguity.

13. Recapitulation and Methodological Issues

The three main concepts that we employed in this study were work salience, work motivation, and values. In addition, we tried to investigate the impact of structural factors on choice.

1. Work Salience

The instrument we used for the measurement of work salience failed to give distinct scales by use of which we could investigate thoroughly how values are connected with attitudes. The instrument, however, gave us some indications for the existence of three separate dimensions reflecting attitudes to work in our sample of Athenian pupils. In the absence of relevant Greek research, we cannot make any speculations as to the extent that these three different attitudinal dimensions, the ones we named actualizing, calculating, and uninvolved do exist in the general population, but the fact that two of them seemed to coincide with the ones that the author of the instrument, drawing from the literature, initially hypothesized to exist, although he did not manage to confirm empirically, could serve as a clue that at least within some groups such attitudes must exist. The third attitudinal dimension was characterized by lack of involvement with work and by more concern for social relations and pleasure than work itself. This dimension had not been hypothesized to exist but it seemed to characterize part of our sample.

A correlational analysis gave us some indications as to the association of values with the three attitudinal scales. The

coefficients obtained were low but they were indicative of the kind of associations we would have obtained had we employed a better adaptation of the instrument. The "actualising" attitude was found to correlate with *Success-Accomplishment*, the "calculating" attitude with *Advancement* and *Salary*, and the "uninvolved" attitude with *Pleasure* and negatively with *Success-Accomplishment*. These findings based on two totally independent measures from the same sample are encouraging for further investigation of the three scales and of the relationship between values and attitudes to work in the pre-entry stage.

2. Work motivation

The model we employed gave more or less the same degree of prediction that most other studies report. In this respect we cannot claim that we are presenting anything new to the relevant literature. What was new and different in this study was that the model worked efficiently with our sets of values, and by implication that in this way value theory and motivational theory were linked together. What was also new and of great methodological implication in our analysis of the data was that we managed to find evidence, by employing the analysis of variance, that the values that differentiated across the ranked occupations were mostly the values that were at both the top and the bottom of the hierarchies of our sample. In this respect we found some empirical evidence in the lines of a methodological suggestion that was put forward relatively recently with regard to the products of the $I_s \times V_s$ (or other relevant concepts) in expectancy-value research:

"A more psychologically plausible account suggests that each product is used to make comparisons between alternatives before summation occurs. Some products might discriminate between alternatives better than others: specifically those products which have a greater variability across alternatives would be better predictors." (Herriot and Ecob, 1979, p. 315).

In our research the variables that discriminated best, as the analysis of variance showed, happened to be of the items that had been identified beforehand as top or bottom values. This should show the way that speculations such as the one mentioned above should follow in practical applications, ie. that positively or negatively salient first-order outcomes are better predictors than "indifferent" ones (though in our case the distinction was between important and non-important).

The responses which we obtained from the interviewed sample reconfirmed the existence of a cognitive mechanism similar to the one hypothesized by the model.

With regard to the motivational model, the main issue, in our view is not whether such models operate in the individual's mind in an objectively "correct" way. On the contrary, as Feather (1982d) points out it is implied in the theory behind such models that each individual's mind has its own workings and "the concepts of expectation and perceived value that we use are framed at the level of subjective reality and that is what is held to be important for understanding a person's behavior" (p.398).

What is of interest is whether individuals adopt a passive attitude of scoring similar instruments in a mechanistic way, that is routinely attributing smaller and smaller instrumentalities to the least preferred alternatives, without giving serious thought to the considered alternatives. In other words, is there a response set inherent in the model? In such a case the whole procedure would be redundant; a verbal statement would be an equally good predictor of behaviour. Some people might respond in such a way, but not all. Besides the fact that overall results show that this cannot be true in all cases, we can present a different kind of evidence: The occupation ranked first received negative instrumentality ratings that ranged in frequency (N=60) from zero (Self-Respect- ranked third in the value hierarchy) to 20 (Beauty - ranked 13th) in the case of Life Values, and from zero (Success-Accomplishment- ranked 1st) to 23 (Artistic Freedom- ranked 16th) in the case of Work Values.

This is a clear indication that in most cases it cannot have been only the degree of preference for the occupation that determined the responses but also the importance of the value being rated in terms of instrumentality across the three ranked occupations. Such an effect is in accordance with the theory.

Related to this is the finding that top and bottom values are employed differentially depending on the context. In other words, some times it is a top value that becomes prevalent in people's cognitions, while in other contexts values at the bottom of the hierarchy can be invoked. This is something that

should be further investigated, particularly as concerns the contexts in which it takes place. Our suggestion is that this differential perception of value attainment is related to need arousal.

One major methodological deficiency of which one could accuse the research study reported here could be that, although it was based on interviewing as opposed to a questionnaire, it did not employ the "own outcome" method which is recommended by many researchers. The fact is that it was employed in some of the interviews, so that we could later make comparisons. What we found was that there were very few "own outcomes" mentioned that could not readily be connected with the outcomes implied in the value lists. Thus, we believe that our list of work values, in particular, superseded the list of work outcomes that could have been generated from the subjects themselves, had such a design been adopted. The only difference that we observed in those cases where we employed such a procedure, too, was that responses tended to be more verbally specific, as opposed to the contextual generality of our value-cues. Such responses were: "respectable job", "responsibilities", "personality growth", "social security", "not a tiring job", "a job in demand", "not far-away", "realization of personal targets", "opportunity for research", "create something for my children", "use of abilities", "have initiative", "a clean job", "to get to know life", "experience(s)", "please my family", "challenging", "near nature", "no stress", "create personally", "own job" etc. to sample a few of the "own outcomes" collected and employed.

Of course it is not only the individual items that matter in

such an approach but their number, too, which may vary depending on how many are salient to the individual. We employed this method in twenty five cases. The "own" outcomes employed in individual cases varied in number from 1 to 6, most of the times being two or three. This made any comparisons difficult, save for investigating whether these "own" outcomes, regardless of their number in each individual case, predicted or not the rank ordering of the occupations. We examined this and we found that in the 26 cases that we employed this method the "own" outcome model predicted the rank ordering of the three occupations as frequently as the model employing the work values list (11 times out of 26 possible). Undoubtedly, in such a case one should opt for parsimony, unless one wants to use more information, or utilize the methodological convenience of standardization, as was the case with our design. We have no reasons to believe, however, that the increased number of outcomes that we asked our subjects to process, which most researchers suggest that should be around seven, plus or minus two, (cf. Miller, 1956), worked against the model. Our subjects, it seems, did their own sorting of the information they wanted to process, which was each subject's top and bottom values, as our evidence points to.

One final note concerning the use of the expectancy model: We found that as in most other studies, the predictive power of the expectancy value model was relatively limited. There were many cases (in the within subjects analysis) that it did not predict the ranked order of the occupations. In other words not more value attainment was perceived for the most preferred occupation. One reason was that the subjects could not always decide on a real rank ordering of the occupations in terms of

preference, because reality factors and perceptions of attainment intervened. There are some additional reasons, and in this respect it is a marked omission in this study that such measures had not been provided for: the model is not applicable in all cases. Feather (1982d) points to some of the cases that such models can or cannot be meaningfully applied. They can be applied where the situation sets the individual to structure possible actions within a means-end or instrumental framework, where there is moderate stress, or realistic hopes for better solutions, where there is time to search and examine thoroughly the possible alternatives. Finally, they can be applied where the time gap between probabilities, valences and actions is minimal. They cannot be applied where external factors so dominate action that the individual has very little perceived choice about what happens, and where the individual characteristics operate against such a model (eg. "impulsives" as opposed to "planners"). Kerr (1983) employing an expectancy model examined old age pensioners applying (or not) for a supplementary benefit. He distinguished five thresholds that serve to define those people for whom the expectancy model is operative: perceived need, basic knowledge, perceived eligibility, perceived utility, perception of the current personal and domestic situation. One can assume that similar thresholds may exist in other specific situations.

3. Values

With regard to the use of values as a key concept in our research, we managed to employ values in a meaningful way with a model predicting occupational choice and preference. In other

words, the sociological approach and the psychological-developmental, motivational, or individual-ambition approach were linked together. We mapped the value systems of our pupils and of their parents and we found great similarities. These similarities must have been the joint result of their sharing a common culture, and of an immediate transmission of values from one generation to the other, within the family, through socialization.

Social system norms were proven to have entered the individual information processing in a meaningful way and thus individual motives were found to reflect, despite their individuality, social norms. This was shown by the fact that the best discriminators in the expectancy model were the values ranked high or low by the total sample. This importance of values of high or low salience was reconfirmed by the responses to the questions in the interviews.

The main reason why we investigated the value systems of a larger sample of pupils and of their parents before proceeding to the analysis of the role of values in individual motivational behaviour was that we wanted to define the structural parameters within which this value - motivational research was taking place. We found that parents between themselves tended to have an overall greater similarity in value systems than with their children. This is true for both Life and Work Values, in the case of our sample. Similar findings have been reported by other researchers, too (Troll et al., 1969).

This was of direct relevance to our investigation because in

this way we had an additional indication of the utility of value research and of the employment of values in a motivational context: we were working within the cognitive environment that the pupils were experiencing at the time. Of more direct relevance was the fact that there were marked similarities between the value hierarchies of the pupils and their parents.

In the case of the work values the pupils' value systems were more similar to those of their fathers in the private school, while in the state school they resembled those of their mothers. We would tend to think that this difference must point towards two different socialization patterns in terms of transmitting the work values. This can be supported by the fact that in the case of Life Values the systems of the pupils of both schools were more similar to the ones of their mothers. It seems that when the socioeconomic status of the father is high the work values associated with this status prevail within the family. This can be supported by the fact that while the parental Life Values systems do not differ significantly between themselves across schools, in terms of the absolute value of the coefficient, (0.839 in the private school as opposed to 0.818 in the state school), when it comes to Work Values the similarity in value systems between parents is higher where the socioeconomic level is higher too (0.905 in the private school and 0.857 in the state school). Of course these are theoretical speculations based on some indications in the data, because the coefficients we are comparing are rank order coefficients of the two value systems, and the difference is not statistically significant.

It seems, though, that some of the significant differences that we found in individual values of the pupils would also point to the existence of such differences in socialization. The private school pupils were found to value *Wisdom* significantly more than the state school pupils, while the opposite is happening with *Advancement*. These two differences reflect, as we argued elsewhere, socioeconomic differences in the composition of the populations of the two schools. These differences must have crept into the value systems of the pupils, through the formation of different needs. One could argue that such value differences are the effects of socialization within a particular school environment, and not of pre-school socialization by the family, or of different need hierarchies. We would argue that parental values determine the choice of school, where there can be a choice in terms of the socio-economic level, in which case the school environment is only strengthening and enhancing the parental value system that has been transmitted to the children. At least this must be the case with our private school sample.

All these were of relevance to the research design adopted here, because we think that we managed to show that in fact the so-called individual-ambition model is not irrelevant to structural approaches, but complementary, as we pointed out elsewhere. It seems that normative components can be very useful in similar kinds of research, and more specifically with similar kinds of motivational models (cf. Herriot and Ecob, 1979; Fishbein and Ajzen, 1975).

To capitulate, social structural differences were reflected

in the value hierarchies. The same values were used as the first order outcomes that the motivational model required. Employing the analysis of variance we found that the best discriminators were the values that characterized our sample in terms of high or low importance attributed to them. Similar indications were found in the analysis of the responses to the interview questions. In addition, the interview helped us isolate some other structural factors, which had not been included in our study as separate measures. These were the impact of labour market and parental expectations on occupational choices. In this way we believe that our results can serve as the seminal framework for similar kinds of future research in which more robust methods of measurement, more differentiated samples, a greater number of measured social characteristics, and the inclusion of more social parameters will show more clearly how structural factors enter and influence individual decision making. This would be most useful in determining what exactly is that determines occupational trends at the pre-entry level, because *"choice and structural constraints are best seen as two sides of the same coin"* (Watson, 1980, p.126).

14. Towards a Value Attainment Theory of Occupational Choice.

In the first part of this study we examined most of the theories of occupational choice and in particular those that have had more impact on career related research and guidance practice. At this point we shall present some theoretical speculations on the occupational choice process, based on the findings of this research study and on the insight that the contact with the interviewed pupils of our sample offered us.

We must make clear at the outset that we do not believe that there can exist a universal theory of occupational choice, as the context, the content and the range of choice can vary even within the same society, at different points in time. Hereditary occupational entry, for example, may characterize the early traditional stages of the development of a society. At a later stage, though, when liberalism both in the society and its economy places more emphasis on the competitive spirit that is required, encouragement may be given to individual striving and the pursuit of "own" goals. At an even later stage, in the same society, certain occupational sectors may have been saturated while new occupations may be appearing or be demanded by the economy. This may be followed by state intervention aiming at canalizing people and their ambitions towards certain goals and not others. Such a state intervention can take the form of educational reform, of youth training programmes, of differential allocation of monetary and prestige awards. Thus, it is our main proposition here that the range, the context, and in a general degree, the content of occupational choice are dictated by the economy. The range of choices and opportunities,

and hence of ambitions is determined by the socioeconomic structure, primarily, and by the dominant values or ideology of the society, secondarily. Within this nexus there is room for the formation of individual ambitions and goals and in this context only can we speak of choice on the part of the individual.

The main tenet in our formulation is that in occupational choice (as in other aspects of their lives) people are trying to realize their values. There are two aspects in this approach to occupational choice : a) a developmental aspect that has to do with the formation of values and acquisition of goals and b) an immediate/motivational aspect that has to do with the mechanism of the pursuit of certain specific outcomes and goals and not of others.

A. Developmental

1. Values are acquired in the socialization process. They are transmitted by the main agents of socialization: the family, education, the peer group. A person's values will have an overall similarity with the dominant values in the society, with the dominant values in the particular social group to which he belongs and with the values of its immediate cognitive environment. At the same time there will exist some significant differences between the value hierarchies of different persons belonging to the same social group and between the value hierarchies of social groups belonging to the same society, without disturbance of the overall similarity. These differences allow for the pursuit of group-specific or person-specific

goals.

2. The general goals that are prevalent within a society are dictated by the socioeconomic structure. Individual and group goals are generally compatible with these general goals. Socially accepted goals are appointed in accordance with the general values in society and are distinguished by the the differential allocation of social rewards and by the differential opportunity for access to them.

3. Personal goals are selected from the general goals appointed by the social system. They are translated into specific goals under the influence of the following set of factors: a) the influence of the immediate social environment; b) acquired or innate psychological characteristics ; c) idiosyncracies in the social and psychological development; and d) the specific opportunity structure in the immediate or wider socioeconomic environment.

B. Immediate/Motivational

1. The person equipped with a set of values acquired through the process of socialization will seek the occupational goal that will provide the maximum realization of his values. A cognitive evaluation of foreseeable outcomes, of their instrumentality in attaining one's own values and of their accessibility will take place.

2. This process of choice is influenced at the cognition (choice) point by three main factors: a) the individual's innate

and acquired characteristics (ability, aptitudes, interests, perceptions etc.) b) his value system c) the socioeconomic system (opportunity structure, constraints on choice, socially accepted goals). This configuration of variables will limit the range of choice to those outcomes that seem "suitable" and compatible with the person's own characteristics.

3. In the first stage, while considering the outcomes that have been singled out the individual will seek the ones that will provide, in his perceptions, the maximum value attainment.

4. Perceptions of the accessibility of the different outcomes will narrow the range of considered outcomes even more. Some desired goals may have to be left out, if they are perceived not to be attainable. An alternative value hierarchy will be employed consisting of some (not all) of the top values that will now be sought to be realized, or of other values, lower in the hierarchy, that will now become salient, as a result of the arousal of new needs or as a compensation for the values that cannot be attained.

5. Once some outcomes have been excluded as unattainable, the outcomes considered will entail a certain degree of value deprivation. This value deprivation, if it is of a tolerable level, will be compensated for by value attainment of formerly not very salient values. A form of cognitive dissonance reduction will take place by evoking values that are viewed as being realized. These values will now become more salient.

6. If the perceptions at stage 4 do not narrow down the number

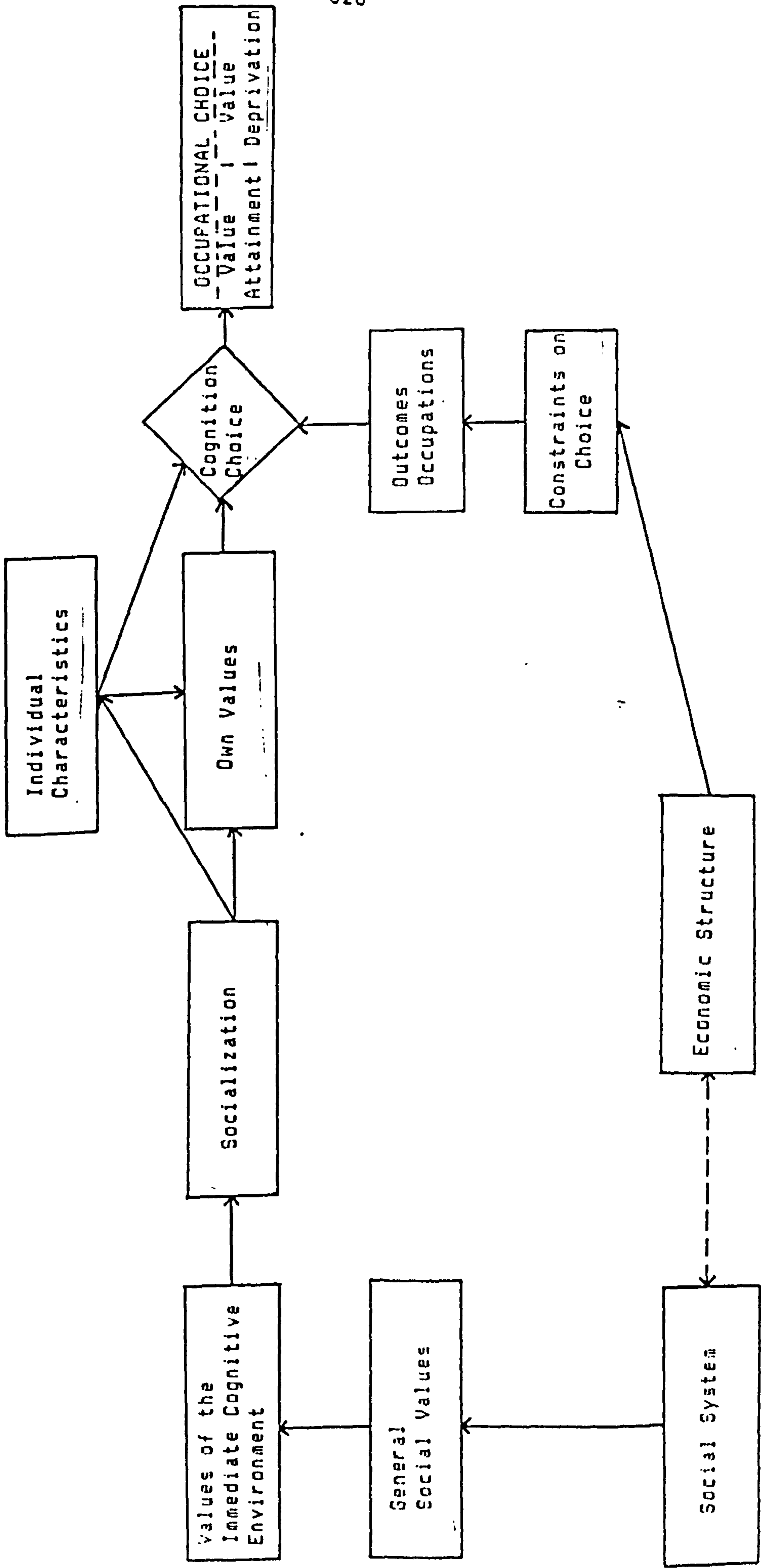
of outcomes considered, then total value attainment is perceived to accompany the choice of an outcome. Such are the cases where abilities and social characteristics do not limit the range of choice. This psychological balance attained (total value attainment) will exist until a new need will cause a rearrangement of the value hierarchy giving salience to a value that has not been realized. This may initiate a new procedure aiming at value attainment.

7. If value deprivation cannot be accommodated by evoking an alternative set of values (formerly not salient), either no choice is made, or disillusion and abandonment may characterize the psychological state of the individual.

Figure 14.1 presents schematically the procedure in our proposed model of occupational choice viewed as a value attainment process. The proposed model is in accordance with sociological theory as it incorporates the structural factors, and with psychological theory, as in the cognition and socialization stages it allows for the inclusion of most variables that have been hypothesized so far to bear on the occupational choice process. In addition, this proposed model can accommodate most developmental and personality factors that have been employed in other theories of occupational choice.

In our study we examined some, not all, of the variables that we assumed to have an immediate relevance to the examination of occupational choice. More specifically, our investigation included some elements pertaining to the macro level of analysis (parental values) and others pertaining to the micro level of

Fig.14.1: Occupational Choice as a Value Attainment Process



analysis (individual perceptions). A host of other variables can be included in other applications of the model. We can mention a few: personality characteristics, social learning skills, normative expectations, structural and economic constraints, attributions etc.

A more thorough examination of the immediate and remote determinants of choice will provide new insight to guidance practitioners, which may result into new approaches to counselling. Social policy makers will also be able to isolate the points where their proposed policies are at odds with the perceptions of those to whom they are supposed to be addressed.

BIBLIOGRAPHY

- ALDERFER, C. P.: *Existence, Relatedness, and Growth: Human Needs in Organizational Settings*. N. York: The Free Press, 1972.
- ALLPORT, G. W., VERNON, P.E., LINDZEY, G.A.: *A Study of Values*. Boston: Houghton Mifflin, 1960.
- ANASTASI, Anne: *Essentials of Psychological Testing*, 3rd Edition, N. York: Collier McMillan, 1976.
- ANDRISANI, P.J., MILJUS, R.C.: "Individual Differences in Preferences for Intrinsic versus Extrinsic Aspects of Work". *Journal of Vocational Behavior* 11 pp. 14-30 1977
- ARGYLE, M.: *The Social Psychology of Work*. Harmondsworth: Penguin, 1972
- ASHTON, D.N.: *Careers and Commitment: The Movement from School to Work*, in D. Field (Ed.): *Social Psychology for Sociologists*. London: T.Nelson and Sons, 1974
- ASHTON, D.N.: *The Transition from School to Work: Notes on the Development of Different Frames of Reference Among Young Male Workers*, in Esland, Salaman, Speakman (Eds.): *People and Work*, Edinburgh: Holmes McDougall, 1975
- ASHTON, D.N., FIELD, D.: *Young Workers*. London: Hutchinson, 1976
- ATKINSON, J.W.: "Motivational Determinants of Risk-Taking Behavior". *Psychological Review* 64 pp. 359-372, 1957
- ATKINSON, J.W.: "Personality Dynamics". *Annual Review of Psychology* 11 pp. 225-290, 1960
- ATKINSON, J.W.: *An Introduction to Motivation*. Princeton, N.J.: Van Nostrand, 1964
- ATKINSON, J.W., BIRCH, D.M.: *An Introduction to Motivation*. N.York: D.Van Nostrand Co, 1978
- ATKINSON, J.W., FEATHER, N.T. (Eds.): *A Theory of Achievement Motivation*. N. York: Wiley, 1966
- ATKINSON, J.W., RAYNOR, J.O. (Eds.): *Personality, Motivation and Achievement*. Hemisphere Publishing Co, 1978 (An abridgement of the 1974 edition: *Motivation and Achievement*, Washington D.C. Winston-Halstead Press-Wiley, 1974)
- BALDCKOCK, C.V. *Vocational Choice and Opportunity*. N.Zealand: Canterbury, 1974
- BANDURA, A., WALTERS, R.H.: *Social Learning and Personality Development*. N.York: Holt, Rinehart, and Winston, 1963.
- BANKS, O.: *The Sociology of Education*. London: Batsford, 1976
- BARBER, B., INKELES, A.: *Stability and Social Change*. Boston: Little, Brown and Co, 1971

- BLAIKIE, N.: "Towards a Theoretical Model for the Study of Occupational Choice". *Sociology* 5 pp. 313-333, 1971
- BLALOCK, H.M.: *Social Statistics*. N. York: McGraw-Hill, 1960
- BLAU, P.M., DUNCAN, D.D.: *The American Occupational Structure*, N. York: Wiley, 1967.
- BLAU, P.M., GUSTAD, J.W., JESSOR, R., PARNES, H.S., WICCOCK, R.C.: "Occupational Choice: A Conceptual Framework". *Industrial and Labour Relations Review* 9 pp. 531-543, 1956
- BORGEN, F.H., SELING, M.J.: "Expressed and Inventoried Interests Revisited: Perspicacity in the Person". *Journal of Counseling Psychology* 25 pp. 536-543, 1978
- BOROW, H. (Ed.): *Man in a World at Work*. Boston: Houghton Mifflin, 1964
- BROWN, D.: "Students Vocational Choices: A Review and Critique." *Guidance Monograph Series, Series IV: Career Information and Development*. Boston: Houghton Mifflin, 1970
- BUCHER, R.: *Social Structural Constraints in Career Decision Making Occupational Hurdles*, in A.M. Mitchell, G.B. Jones, J.D. Krumboltz (Eds.): *Social Learning and Career Decision Making* Cramston, Rhode Island: The Carroll Press, 1979.
- CAMPBELL, J.P., PRITCHARD, R.D.: *Motivation Theory in Industrial and Organizational Psychology*, in Dunnette M. (Ed.): *Handbook of Industrial and Organizational Psychology*. Chicago: Rand McNally, 1976
- CARRUTHERS, T: "Work Values and Chosen Careers. Note on a Trial of an American Work Values Inventory with British Subjects." *Occupational Psychology* 42 pp. 111-117, 1968
- CARTER, M.: *Into Work*. Harmondsworth: Penguin, 1966
- CASSOTAKIS, M.: *Le Developpement Economique et le Probleme de l'Orientation Scolaire et Professionnelle en Grece. These de troisieme cycle soutenue a l'Universite Paris V-Sorbonne*. Athens: 1979 (xerox reproduction)
- CENTERS, R.: "Motivational Aspects of Occupational Stratification". *Journal of Social Psychology* 28 pp. 187-217, 1948
- CENTERS, R.: *The Psychology of Social Classes: A Study of Class Consciousness*. Princeton Univ. Press, 1949
- CENTERS, R., BUGENTAL, D.E.: "Intrinsic and Extrinsic Job Motivations Among Different Segments of the Working Population." *Journal of Applied Psychology* 50 pp. 193-197, 1966
- CHILD, D.: *The Essentials of Factor Analysis*. London: Holt, Rinehart and Winston, 1970
- COCHRANE, R., ROKEACH, M: "Rokeach's Value Survey: A Methodological Note." *Journal of Experimental Research in Personality* 4 pp. 159-161, 1970

- COLLIN, A.: "A Mid-Career Perspective on the Opportunity-Structure/ Occupational-Choice Debate". *British Journal of Guidance and Counselling* 11 pp. 52-67, 1983
- COOK, J.D., HEPWORTH, S.J., WALL, T.D., WARR, P.B.: *The Experience of Work: A Compendium and Review of 249 Measures and Their Use*. London: Academic Press, 1981
- COOPER, J.B., McGAUGH, J.L.: *Attitudes and Related Concepts*, in Jahoda, M. and Warren, N.: *Attitudes*, Harmondsworth: Penguin, 1966
- COULSON, M.A., KEIL, E.T., RIDELL, C., STRUTHERS, J.S.: "Towards a Sociological Theory of Occupational Choice-A Critique." *The Sociological Review* 15 1967 (in Williams, W.M. (Ed.): *Occupational Choice*, London: Allen and Unwin, 1974
- COX, A.: *The Meaning of Work*. London: The Open University: People and Work, Unit 6, 1976
- CRITES, J.O.: *Vocational Psychology: The Study of Vocational Behavior and Development*. N.York: McGraw-Hill, 1969
- CRITES, J.O.: *Career Counseling: A Review of Major Approaches*, in J.M. Whiteley, A. Resnikoff (Eds.): *Career Counseling*. Monterey, Calif.: Brooks/Cole, 1978.
- CRONBACH, L.J.: *Essentials Of Psychological Testing* (Third Edition). N.York: Harper and Row, 1970
- DACHLER, H.P., MOBLEY, W.H.: "Construct Validation of an Instrumentality-Expectancy-Task-Goal Model of Work Motivation: Some Theoretical Boundary Conditions". *Journal of Applied Psychology Monograph* 58 pp. 397-418, 1973
- DAWS, P.P.: *A Classification of Occupational Satisfaction Sought by Fifth Form Pupils in the West Riding Yorkshire*. Leeds: Vocational Guidance Research Unit. University of Leeds, 1965 (mimeo)
- DAWS, P.P.: *The Socialisation/Opportunity-Structure Theory of Occupational Location of School Leavers: A Critical Appraisal*, in Watts, A.G., Super, D.E, Kidd, J.M., *Career Development in Britain*, 1981.
- DIPBOYE, W.J., ANDERSON, W.F.: "The Ordering of Occupational Values by High School Freshmen and Seniors." *Personnel and Guidance Journal* 38 pp. 121-124 1959
- DODWELL, P.C. *New Horizons in Psychology*. Harmondsworth: Penguin (2nd edition), 1980
- DOUGLAS, J.W.B., ROSS, J.M., SIMPSON, K.R.: *All Our Future*. London: Peter Davies, 1968
- DRUMMOND, J.R., McINTIRE, W.G., SKAGGS, C.T.: "Work Values and Job Satisfaction of Young Adult Males". *Journal of Employment Counseling* 14 pp. 23-26, 1977

- DUBIN, R.: "Industrial Workers' Worlds: A Study of the 'Central Life Interests' of Industrial Workers." *Social Problems* 3 pp. 131-142, 1956
- DUNNETTE, M. (Ed.): *Handbook of Industrial and Organizational Psychology*. Chicago: Rand McNally, 1976
- DURKHEIM, E. *De la Division du Travail Social*, 1893
- EDWARDS, W.: "The Theory of Decision-Making". *Psychological Bulletin* 51 pp. 380-418, 1954
- EDWARDS, W.: "Behavioral Decision Theory". *Annual Review of Psychology* 12 pp. 473-498, 1961
- EREZ, M.: "Expectancy Theory Prediction of Willingness to Be Retrained: The Case of Ratings' Advancement in the Israeli Navy". *Journal of Occupational Psychology* 52 pp. 35-40, 1979
- ESLAND, G., SALAMAN, G., SPEAKMAN, M (Eds.): *People and Work*. Edinburgh: Holmes McDougall, 1975
- EVANS, C: *Psychology: A Dictionary of the Mind, Brain and Behaviour*. London: Arrow Reference Series, 1978
- FEATHER, N.T.: "Educational Choice and Student Attitudes in Relation to Terminal and Instrumental Values". *Australian Journal of Psychology* 22 pp. 127-144, 1970
- FEATHER, N.T.: "Similarity of Value Systems as a Determinant of Educational Choice at University Level". *Australian Journal of Psychology* 23 pp. 201-211, 1971 (a)
- FEATHER, N.T.: "Test-Retest Reliability of Individual Values and Value Systems." *Australian Psychologist* 6 pp. 181-188, 1971(b)
- FEATHER, N.T.: "Value Similarity and Value Systems in State and Independent Secondary Schools." *Australian Journal of Psychology* 24 pp. 305-315, 1972 (a)
- FEATHER, N.T.: "Value Systems and Education: The Flinders Programme of Value Research." *Australian Journal of Education* 16 pp. 136-149, 1972 (b)
- FEATHER, N. T.: *Values in Education and Society*. N.York: Free Press, 1975
- FEATHER, N.T. (ED.): *Expectations and Actions: Expectancy-Value Models in Psychology*. Hillsdale, N.Jersey: Lawrence Erlbaum, 1982
- FEATHER, N.T.: *Actions in Relation to Expected Consequences: An Overview of a Research Program*, in Feather, N.T. (Ed.): *Expectations and Actions*, Hillsdale, N.Jersey: Lawrence Erlbaum 1982(a)
- FEATHER, N.T.: *Human Values and the Prediction of Action: An Expectancy-Valence Analysis*, in Feather N.T. (Ed.): *Expectations and Actions*. Hillsdale, N.Jersey: Lawrence Erlbaum 1982 (b)

- FEATHER, N.T.: "Reasons for Entering Medical School in Relation to Value Priorities and Sex of Student". *Journal of Occupational Psychology* 55 pp. 119-128, 1982 (c)
- FEATHER, N.T.: Expectancy-Value Approaches: Present Status and Future Directions, in Feather, N.T. (Ed): *Expectations and Actions*, Hillsdale, N. Jersey: Lawrence Erlbaum, 1982 (d)
- FEATHER, N.T., COLLINS, J.M.: "Differences in Attitudes and Values of Students in Relation to Program of Study at a College of Advanced Education." *Australian Journal of Education* 18 pp. 16-29, 1974
- FEATHER, N.T., PEAY, E.R.: "The Structure of Terminal and Instrumental Values: Dimensions and Clusters." *Australian Journal of Psychology*, 1975
- FESTINGER, L.: *A Theory of Cognitive Dissonance*. Stanford, Calif.: Stanford Univ. Press, 1957
- FIELD, D.N. (Ed.): *Social Psychology for Sociologists*. London: T.Nelson and Sons, 1974
- FISHBEIN, M., AJZEN, I.: *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, Mass.: Addison-Wesley, 1975
- FOGELMAN, K.: "Educational and Career Aspirations of Sixteen-Year-Olds." *British Journal of Guidance and Counselling* 7 pp. 42-55, 1979
- FORD, D.L., HUBER, G.P., GUSTAFSON, D.H.: "Predicting Job Choices with Models that Contain Subjective Probability Judgements: An Empirical Comparison of Five Models." *Organizational Behavior and Human Performance* 7 pp. 397-416, 1972
- FORD, J., BOX,S.: "Sociological Theory and Occupational Choice". *The Sociological Review* 1967, in Williams, W.M. (Ed.): *Occupational Choice*, London: George Allen and Unwin, 1974.
- GARBIN, A.P., STOVER, R.G.: "Vocational Behavior and Career Development, 1979: A Review." *Journal of Vocational Behavior* 17 pp. 125-170, 1980.
- GELATT, A.B.: "Decision-Making: A Conceptual Frame of Reference for Counseling." *Journal of Counseling Psychology* 9 pp. 240-245, 1962
- GERTH, H.H., MILLS, C.M.: *From Max Weber*. London: Routledge and Kegan Paul, 1948
- GHISELLI, E.E.: *The Validity of Occupational Aptitude Tests*. N.York: Wiley, 1966
- GIBB, V.: *The Re-creation and Perpetuation of the Secretarial Myth*, in D. Gleeson (Ed.): *Youth Training and the Search for Work*. London: Routledge and Kegan Paul, 1983.

- GINZBERG, E.: "Toward a Theory of Occupational Choice: A Restatement." *Vocational Guidance Quarterly* pp. 169-176, March 1972
- GINZBERG, E., GINSBURG, S.W., AXELRAD, S., HERMA, J.: *Occupational Choice*. Columbia Univ. Press, 1951
- GLEESON, D. (Ed.): *Youth Training and the Search for Work*. London: Routledge and Kegan Paul, 1983
- GLICK, P. "Occupational Values and Anticipated Occupational Frustration of Agricultural College Students." *Personnel and Guidance Journal* 42 pp. 674-679, 1964
- GOSLIN, A. (Ed.): *Handbook of Socialization Theory and Research*. Chicago: Rand McNally, 1969
- GOTTFREDSON, L.S., BECKER, H.J.: "A Challenge to Vocational Psychology: How Important Are Aspirations in Determining Male Career Development?" *Journal of Vocational Behavior* 18 pp. 121-137, 1981.
- GREENHAUS, J.H.: "An Investigation of the Role of Career Salience in Vocational Behavior." *Journal of Vocational Behavior* 1 pp. 209-216, 1971
- GREENHAUS, J.H.: "A Factorial Investigation of Career Salience" *Journal of Vocational Behavior* 3 pp. 95-98, 1973
- GREENHAUS, J.H.: "Career Salience as a Moderator of the Relationship Between Satisfaction with Occupational Preference and Satisfaction with Life in General". *Journal of Psychology* 86 pp. 53-55, 1974
- GREENHAUS, J.H., SIMON, W.E.: "Career Salience, Work Values, and Vocational Indecision." *Journal of Vocational Behavior* 10 pp. 104-110, 1977
- GRIBBONS, N.D., LOHNES, P.R.: "Shifts in Adolescents' Vocational Values." *Personnel and Guidance Journal* 44 pp. 248-252, 1965
- GRIBBONS, W.D., LOHNESS, P.R.: *Emerging Careers*. N.York: Teachers College Press, 1979.
- GOODALE, J.G., HALL, D.T.: "Inheriting a Career: The Influence of Sex, Values, and Parents." *Journal of Vocational Behavior* 8 pp. 19-30, 1976
- HALES, L.W., FENNER, B.: "Work Values of 5th, 8th, and 11th Grade Students." *Vocational Guidance Quarterly* 20 pp. 199-203, 1972
- HALES, L.W., FENNER, B.J.: "Sex and Social Class Differences in Work Values". *Elementary School Guidance and Counseling* 8 pp. 26-32, 1973
- HALSEY, A.H., HEATH, A.F., RIDGE, J.M.: *Origins and Destinations. Family, Class, and Education in Modern Britain*. Oxford: Clarendon Press, 1980

- HAMMOND, M.: "Occupational Attitude Rating Scales." *Personnel and Guidance Journal* 32 pp. 470-474, 1954
- HAN, W.S.: "Two Conflicting Themes: Common Values versus Class Differential Values." *American Sociological Review* 34 pp. 679-690, 1969
- HAYES, J., HOPSON, B.: *Careers Guidance: The Role of the School in Vocational Development*. London: Heinemann Educational Books, 1972
- HEATH, A.: *Social Mobility*. Fontana Paperback, 1981.
- HEATH, A., RIDGE, J.: Schools, Examinations and Occupational Attainment, in Purvis, J., Hales, M. (Eds.) *Achievement and Inequality in Education*. London: Routledge, Kegan and Paul, 1983
- HECKHAUSEN, H., WEINER, B.: The Emergence of a Cognitive Psychology of Motivation, in Dodwell, P.C. (Ed.): *New Horizons in Psychology*. Harmondsworth: Penguin (2nd Edition), 1980
- HERR, E.L.: *Decision-Making and Vocational Development. Guidance Monograph Series, Series IV: Career Information and Development*, Boston: Houghton Mifflin, 1970
- HERRIOT, P., ECOB, R.: "Occupational and Expectancy-Value Theory: Testing some Modifications." *Journal of Occupational Psychology* 52 pp. 311-324, 1979
- HERSHENSON, D.B., ROTH, R.M.: "A Decisional Process Model of Vocational Development." *Journal of Counseling Psychology* 13 pp. 368-370, 1966
- HERZBERG, F.: *Work and the Nature of Man*. N. York: The World Publishing Co, 1966
- HERZBERG, F., MAUSNER, B., SNYDERMAN, B.B.: *The Motivation to Work*. N. York: Wiley, 1959
- HICKS, L.E.: "Some Properties of Ipsative, Normative, and Forced-Choice Normative Measures". *Psychological Bulletin* 74 pp. 167-184, 1970
- HILTON, T.L.: "Career Decision-Making." *Journal of Counseling Psychology* 9 p.p. 291-298 1962
- HINKLE, D.E., WIERSMA, W., JURIS, S.G.: *Applied Statistics for the Behavioral Sciences*. Chicago: Rand McNally, 1979
- HIRSZOWICZ, M.: *Industrial Sociology: An Introduction*. Oxford: Martin Robertson, 1981
- HOLLAND, J.L.: "A Theory of Vocational Choice". *Journal of Counseling Psychology* 6 pp. 35-43, 1959
- HOLLAND, J.L.: *The Psychology of Vocational Guidance: A Theory of Personality Types and Environmental Models*. N.York: Ginn, 1966

- HOLLAND, J.L.: Making Vocational Choices. Englewood Cliffs, N.J: Prentice-Hall, 1973
- HOLLAND, J.L.: A New Synthesis for an Old Method and a New Analysis of Some Old Phenomena, in Whiteley, J.M., Resnikoff, A. (Eds.): Career Counseling. Monterey, Calif: Brooks/Cole, 1978
- HOLMSTROM, V.L., BEACH, L.R.: "Subjective Expected Utility and Career Preferences." *Organizational Behavior and Human Performance* 10 pp. 201-207, 1973
- HOPSON, B., HAYES, J.: The Theory and Practice of Vocational Guidance. Oxford: Pergamon Press, 1968
- HULL, C.H., NIE, N.H.: SPSS Update, N. York: McGraw Hill, 1979
- HYMAN, H.H.: The Value Systems of Different Classes: A Social Psychological Contribution to the Analysis of Stratification, in Bendix, R., Lipset, S.M. (Eds.): Class, Status and Power. London: Routledge Kegan and Paul, 1954
- ILGEN, D.R., NEBEKER, D.M., PRITCHARD, R.D.: "Expectancy Theory Measures: An Empirical Comparison in an Experimental Situation". *Organizational Behavior and Human Performance* 28 pp. 189-223, 1981.
- IMPELLITERI, J.T., KAPES, J.T.: The Measurement of Occupational Values. University Park, Pennsylvania: Department of Vocational Education, the Pennsylvania State University, Voc.Development Study Monograph No 3, September, 1971
- INKELES, A.: Social Structure and Socialization, in Goslin, A. (Ed.): Handbook of Socialization Theory and Research. Chicago: Rand McNally, 1969
- INSKEEP, R.B.: An Application of Expectancy Theory to the Occupational Choice Process. Unpublished PH.D Thesis. Wayne State University, 1978
- ISRAEL, J., TAJFEL, H. (Eds.): The Context of Social Psychology: A Critical Assessment. London: Academic Press, 1972
- JACKSON, B., MARSDEN, D.: Education and the Working Class. Harmondsworth: Penguin, 1962
- JAHODA, M., WARREN, N.: Attitudes. Harmondsworth: Penguin, 1966
- JEPSEN, D.A., DILLEY, J.S.: "Vocational Decision-Making Models: A Review and Comparative Analysis". *Review of Educational Research* 44 pp. 331-349, 1974
- JORDAAN, J.P., HEYDE, M.B.: Vocational Maturity in the High School Years. N.York: Teachers College Press, 1979.
- KANUNGO, R.N.: "The Concepts of Alienation and Involvement Revisited". *Psychological Bulletin* 86 pp. 119-138, 1979
- KAPES, J.T., LOTOWYCZ, L.W.: Changes in the Occupational Values of Students Between 9th and 10th Grade as Related to Course of Study and Other Student Characteristics. Pennsylvania Dept. of

Study and Other Student Characteristics. Pennsylvania Dept. of Education, Bureau of Vocational, Technical and Continuing Education Research Coordinating Unit, VDS Monograph No 5, 1972

KAPES, J.T., STRICKLER, R.E.: "A Longitudinal Study of Change in Work Values Between 9th and 12th Grades as Related to High School Curriculum." *Journal of Vocational Behavior* 6 pp. 81-93, 1975

KATAKIS, Ch.: The Three Identities of the Greek Family: Psycho-Social Processes. Athens: Kedros, 1984

KATZ, M.: Decisions and Values: A Rationale for Secondary School Guidance. Washington: College Entrance Examinations Board, 1963

KATZ, F.E., MARTIN, H.W.: "Career Choice Problems". *Social Forces* 41 pp. 149-154, 1963

KATZELL, R.A.: Personal Values, Job Satisfaction, and Job Behavior, in Borow, H. (Ed.): Man in a World at Work. Boston: Houghton Mifflin, 1964

KAZANAS, H.C., HANNAH, L.D., GREGOR, T.G.: "An Instrument to Measure the Meaning and the Value Associated with Work." *Journal of Industrial Teacher Education* 12 pp. 68-73, 1975

KEIL, E.T., RIDELL, C., GREEN, B.S.R.: "Youth and Work: Problems and Perspectives." *The Sociological Review* 14 1966, in Williams W.M. (Ed.): Occupational Choice, London: George Allen and Unwin, 1974

KELSALL, R.K., POOLE, A., KUHN, A.: Graduates: The Sociology of an Elite. London: Methuen, 1972

KERLINGER, F.N.: Foundations of Behavioral Research. 2nd Edition. N. York: Holt, Rinehart, Winston, 1977

KERR, S: Making Ends Meet. Occasional Papers in Social Administration, No 69. London: Bedford Square Press/NVCO, 1983

KIDD, J.M.: A Model and a Measure of Career Development Indigenous to the UK. Paper Presented at the XIXth International Congress of Applied Psychology, Munich, 1978 (mimeo)

KIDD, J.M.: Self and Occupational Awareness as Influences on the Career Development of Young People, in Watts, A.G., Super, D.E., Kidd, J.M. (Eds.): Career Development in Britain. CRAC (Hobsons Press) 1981.

KIDD, J.M.: "Young People's Perceptions of their Occupational Decision-Making." *British Journal of Guidance and Counselling* 12 pp. 25-38, 1984

KIDD, J.M., KNASEL, E.G.: Work Values and Work Salience: A Review of British and North American Literature. Hertford: NICEC, 1980

KINNANE, J.F., BANNON, S.M.: "Perceived Parental Influence and Work Values Orientations." *Personnel and Guidance Journal* 43

pp. 273-279, 1964

KINNANE, J.F., PABLE, M.W.: "Family Background and Work Value Orientation." *Journal of Counseling Psychology* 9 pp. 320-325, 1962

KLUCKHOHN, C.: Values and Value-Orientations in the Theory of Action: An Exploration in Definition and Classification, in Parsons, T. and Shils, E.T. (Eds.): *Toward a General Theory of Action*. Cambridge: Harvard University Press, 1951

KLUCKHOHN, F.R., STRDBECK, F.L.: Variations in Value Orientations. Row Peterson, 1961

KNASEL, E.G., SUPER, D.E., KIDD, J.M.: Work Salience and Work Values: Their Dimensions, Assessment and Significance. Final Technical Report to the U.S. Army Research Institute. Hertford, England: NICEC, 1981

KOHN, M.L., SCHOOLER, C.: "Class, Occupation, and Orientation." *American Sociological Review* 34 pp. 659-678, 1969

KOPELMAN, R.E., THOMPSON, P.H.: "Boundary Conditions for Expectancy Theory Predictions of Work Motivation and Job Performance". *Acadeay of Management Journal* 19 pp. 237-258, 1976

KRUMBOLTZ, J.D., MITCHELL, A.M., JONES, G.B.: A Social Learning Theory of Career Selection, in Whiteley, J.M., Resnikoff, A. (Eds.): *Career Counseling*. Monterey, Calif: Brooks/Cole, 1978(a)

KRUMBOLTZ, J.D.: This Chevrolet Can't Float or Fly: A Rejoinder, in Whiteley, J.M., Resnikoff, A. (Eds.): *Career Counseling*. Monterey, Calif: Brooks/Cole, 1978 (b)

KUHLEN, R.G., DIPBOYE, W.J.: Motivational and Personality Factors in the Selection of Elementary and Secondary School Teaching as a Career. Syracuse, N.Y.: Syracuse Univ.Institute of Research, 1959

KUVLESKY, W.P., BEALER, R.C.: "A Clarification of the Concept of 'Occupational Choice'" *Rural Sociology* 31 pp. 256-276, 1966.

LAMBIRIS-DIMAKIS, J.: *Towards a Greek Sociology of Education*. Athens: The National Centre for Social Research (EKKE), 1974

LEON, F.R.: "Number of Outcomes and Accuracy of Prediction in Expectancy Research". *Organizational Behavior and Human Performance* 23 pp. 251-267, 1979

LEWIN, K.: *A Dynamic Theory of Personality*. N.York: McGraw-Hill, 1935

LEWIN, K.: *The Conceptual Represantation and The Measurument of Psychological Forces*. Durham, N.Carolina: Duke Univ.Press, 1938

LIPSET, S.M., BENDIX, R.: *Social Mobility in Industrial Society*, Berkeley, Calif.: Univ. of California Press, 1959.

LIVERSIDGE, W.: "Life Changes". *The Sociological Review* 10

1962, in Williams, W.M. (Ed.): *Occupational Choice*. London: Allen and Unwin, 1974

LOCKE, E.A.: *The Nature and Causes of Job Satisfaction*, in Dunnette, M. (Ed.): *Handbook of Industrial and Organizational Psychology*. Chicago: Rand McNally, 1976

LODAHL, T.M., KEJNER, M.: "The Definition and Measurement of Job Involvement." *Journal of Applied Psychology* 49 pp. 24-33, 1965

LORR, M., SUZIEDELIS, A., TONESK, X.: "The Structure of Values: Conceptions of the Desirable." *Journal of Research in Personality* 7 pp. 139-147, 1973.

MacDONALD, A.P.: "Instrumental and Terminal Values: Some New Developments". *Catalog of Selected Documents in Psychology* 4, 1974

MAHONE, C.H.: "Fear of Failure and Unrealistic Vocational Aspirations." *Journal of Abnormal and Social Psychology* 60 pp. 253-261, 1960

MAIZELS, J.: *Adolescent Needs and the Transition from School to Work*. London: Athlone Press, 1970.

MARX, K.: *Economic and Philosophical Manuscripts*, in Marx-Engels: *Gesamtausgabe* (Vol.3), Berlin, Germany: Marx-Engels Institute, 1932 (Originally Published 1844)

MASIH, L.K.: "Career Saliency and its Relation to Certain Needs, Interests, and Job Values." *Personnel and Guidance Journal* 45 pp. 653-658, 1962

MATSUI, T., IKEDA, H.: "Effectiveness of Self-Generated Outcomes for Improving Prediction in Expectancy Theory Research." *Organizational Behavior and Human Performance* 17 pp. 289-298, 1976

MCCLELLAND, D.C., ATKINSON, J.W., CLARK, R.A., LOWELL, E.L.: *The Achievement Motive*. N.York: Appleton-Century-Crofts, 1953

MCCORMICK, E.J., ILGEN, D.: *Industrial Psychology*. London: George Allen and Unwin (7th Edition), 1981

McKENNA, D.D.: *Comparative Reliability and Validity of Rating and Ranking Versions of Rokeach's Value Survey*. Unpublished PH.D Thesis, University of Minnesota, 1979

McKINNEY, J.P.: "The Development of Values: A Perceptual Interpretation". *Journal of Personality and Social Psychology* 31 pp. 801-807, 1975

MILLER, C.A.: "Occupational Choice and Values". *Personnel and Guidance Journal* 35 pp. 244-246, 1956

MILLER, C.H.: "Age Differences in Occupational Values of College Men." *Journal of Counseling Psychology* 1 pp. 190-192, 1954

MILLER, D.C., FORM, W.H.: *Industrial Sociology*. N.York: Harper, 1951

- MILLER, G.A.: "The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information". *Psychological Review* 60 pp. 81-97, 1956
- MITCHELL, A.M.: Relevant Evidence, in Mitchell, A.M., Jones, G.B., Krumboltz, J.D. (Eds.): *Social Learning and Career Decision Making*. Cranston, Rhode Island: The Carroll Press, 1979
- MITCHELL, A.M., JONES, G.B., KRUMBOLTZ, J.D.: *Social Learning and Career Decision Making*. Cranston, Rhode Island: The Carroll Press, 1979.
- MITCHELL, T.R.: "Expectancy Models of Job Satisfaction, Occupational Preference, and Effort: A Theoretical, Methodological, and Empirical Appraisal." *Psychological Bulletin* 81 pp. 1053-1077, 1974
- MITCHELL, T.R.: "Organizational Behavior." *Annual Review of Psychology*. Palo Alto, Cal.: *Annual Reviews* 30 pp. 243-282, 1979
- MITCHELL, T.R.: Expectancy-Value Models in Organizational Psychology, in Feather, N.T. (Ed.): *Expectations and Actions: Expectancy-Value Models in Psychology*. Hillsdale, N.Jersey: Lawrence Erlbaum, 1982
- MITCHELL, T.R., BEACH, L.R.: "A Review of Occupational Preference and Choice Research Using Expectancy Theory and Decision Theory." *Journal of Occupational Psychology* 49 pp. 231-248, 1976
- MITCHELL, T.R., BEACH, L.R.: Expectancy Theory, Decision Theory, and Occupational Preference and Choice, in Kaplan, M.F., Schwartz, S. (Eds.): *Human Judgement and Decision Processes in Applied Settings*. N.York: Academic Press, 1977.
- MITCHELL, T.R., BIGLAN, A.: "Instrumentality Theories: Current Uses in Psychology." *Psychological Bulletin* 76 pp. 432-454, 1971
- MITCHELL, T.R., KNUDSEN, B.W.: "Instrumentality Theory Predictions of Students Attitudes Towards Business and Their Choice of Business as an Occupation." *Academy of Management Journal* 16 pp. 41-52, 1973
- MITCHELL, T.R., NEBEKER, D.M.: "Expectancy Theory Predictions of Academic Effort and Performance." *Journal of Applied Psychology* 57 pp. 61-67, 1973
- MODR, C.H.: *From School to Work-Effective Counselling and Guidance*. London: Sage, 1976
- MOORE, W.: *Occupational Socialization in Goslin, D. (Ed.): Handbook of Socialization Theory and Research*. Chicago: Rand McNally, 1969
- MORRIS, C.: *Varieties of Human Values*. Chicago: Univ. Press, 1956

MORRISON, A., McINTYRE, D.: *Schools and Socialization*. Harmondsworth: Penguin, 1971

MOUZELIS, N.: *Modern Greece: Facets of Underdevelopment*. London: Macmillan, 1978

MUCHINSKY, P.M., FITCH, M.K.: "Subjective Expected Utility and Academic Preferences." *Organizational Behavior and Human Performance* 14 pp. 217-226, 1975

MUCHINSKY, P.M., TAYLOR, M.S.: "Intrasubject Predictions of Occupational Preference: The Effect of Manipulating Components of the Valence Model." *Journal of Vocational Behavior* 8 pp. 185-195, 1976

MUNSON, J.M., POSNER, B.Z.: "The Factorial Validity of a Modified Rokeach Value Survey for Diverse Samples". *Educational and Psychological Measurement* 4 pp. 1073-1079, 1980

MUSGRAVE, P.W.: "Towards a Sociological Theory of Occupational Choice." *The Sociological Review* 15 1967, in Williams, W.M. (Ed.) *Occupational Choice*. London: Allen and Unwin, 1974

MYLONAS TH.: *The Reproduction of the Social Classes Through School Mechanisms*. Athens: Editions Grigori, 1982

NELSON, D.M.: "The Predictive Value of the Rothwell-Miller Interest Blank." *Journal of Occupational Psychology* 42 pp. 123-131, 1968

NIE, N.H., HULL, C.H., JENKINS, J.G, STEINBRENNER, K., BENT, D.H.: *SPSS: Statistical Package for the Social Sciences*. N.York: McGraw Hill, 1975

OSIPOW, S.H.: *Theories of Career Development*. N.York: Appleton-Century-Crofts, 1968

OSIPOW, S.H.: "Vocational Behavior and Career Development, 1975: A Review." *Journal of Vocational Behavior* 9 pp. 129-145, 1976

PAINE, E.T., DEUTSCH, D.R., SMITH, R.A.: "Relationship Between Family Background and Work Values." *Journal of Applied Psychology* 51 pp. 320-323, 1975

PARKER, D., DYER, L.: "Expectancy Theory as a Within - Person Behavioral Choice Model: An Empirical Test of Some Conceptual and Methodological Refinements". *Organizational Behavior and Human Performance* 17 pp. 97-117, 1976

PARSONS, F.: *Choosing a Vocation*. Boston: Houghton-Mifflin, 1909

PARSONS, T.: "On the Concept of Value-Commitments." *Sociological Inquiry* 38 pp. 135-160, 1968

PARSONS, T., SHILS, E.T. (Eds.): *Toward a General Theory of Action*. Cambridge: Harvard University Press, 1951

PERRONE, P.A.: "Values and Occupational Preferences of Junior High School Girls." *Personnel and Guidance Journal* 44 pp. 253-257, 1965

- PERRONE, P.A.: "A Longitudinal Study of Occupational Values in Adolescents." *Vocational Guidance Quarterly* 22 pp. 116-123, 1973
- PETERS, L.H.: "Cognitive Models of Motivation, Expectancy Theory and Effort: An Analysis and Empirical Test." *Organizational Behavior and Human Performance* 20 pp. 129-148, 1977
- PHILIPS, B.S.: "Expected Value Deprivation and Occupational Preference." *Sociometry* 27 pp. 151-160, 1964
- PRYOR, R.: "In Search of a Concept: Work Values." *Vocational Guidance Quarterly* 27 pp. 250-258, 1979
- PSATHAS, G.: "Toward a Theory of Occupational Choice for Women." *Sociology and Social Research* 52 pp. 253-268, 1962
- PURVIS, J., HALES, M. (Eds.): *Achievement and Inequality in Education*. London: Routledge and Kegan Paul, 1983.
- RABINOWITZ, S., HALL, D.T.: "Organizational Research on Job Involvement." *Psychological Bulletin* 84 pp. 265-288, 1977
- RAYNOR, J.O.: *Motivation and Career Striving*, in Atkinson, J.W., Raynor, J.O. (Eds.): *Personality, Motivation and Achievement*. Hemisphere 1974
- RAYNOR, J.O.: *Future Orientation, Self-Evaluation, and Achievement Motivation: Use of an Expectancy X Value Theory of Personality Functioning and Change*, in Feather, N.T. (Ed.): *Expectations and Actions: Expectancy-Value Models in Psychology*. N.J.: Lawrence Erlbaum, 1982
- RICHARDSON, M.S.: "The Dimensions of Career and Work Orientation in College Women." *Journal of Vocational Behavior* 5 pp. 161-172, 1974
- ROBERTS, K.: "The Entry into Employment: An Approach Toward a General Theory." *Sociological Review* 16 1968, in Williams, W. M. (Ed.): *Occupational Choice*, London: Allen and Unwin, 1974
- ROBERTS, K.: *From School to Work: A Study of the Youth Employment Service*. Newton Abbot: David and Charles, 1971
- ROBERTS, K.: *The Developmental Theory of Occupational Choice: A Critique and an Alternative*, in Esland, G., Salaman, G., Speakman, M. (Eds.): "People and Work", Edinburgh, Holmes McDougall, 1975
- ROBERTS, K.: *The Sociology of Work Entry and Occupational Choice*, in Watts, A.G., Super, D.E., Kidd, J.M. (Eds.): *Career Development in Britain*. Cambridge: CRAC (Hobsons Press), 1981
- RODDMAN, H.: "The Lower Class Value Stretch." *Social Forces* 42 pp. 205-215, 1963
- ROKEACH, M.: *The Nature of Human Values*. N.York: Free Press 1973
- ROKEACH, M.: "Change and Stability in American Value Systems,

- 1968-1971". *Public Opinion Quarterly* 38 pp. 222-238, 1974
- ROSCOE, J.T.: *Fundamental Research Statistics for the Behavioral Sciences*. N.York: Holt, Rinehart and Winston, 1975
- ROSENBERG, M.: *Occupations and Values*. Glencoe, Illinois: Free Press, 1957
- ROTTER, J.B.: *Social Learning and Clinical Psychology*. Englewood Cliffs, N.Jersey: Prentice-Hall, 1954.
- ROTTER, J.B., CHANCE, J.E., PHARES, E.J.: *An Introduction to Social Learning Theory*, in Rotter, Chance, Phares (Eds.): *Applications of a Social Learning Theory of Personality*. N.York: Holt, Rinehart, and Winston, 1972.
- RUTTER, M., MAUGHAN, B., MORTIMORE, P., DUSTON, J.: *Fifteen Hundred Hours: Secondary Schools and their Effects on Children*, London: Open Books, 1979.
- SCHMITT, N., SON, L.: "An Evaluation of Valence Models of Motivation to Pursue Various Post High School Alternatives." *Organizational Behavior and Human Performance* 27 pp. 135-150, 1981
- SCHWAB, D.P., OLIAN-GOTTLIEB, J.D., HENEMAN, H.G.: "Between Subjects Expectancy Theory Research: A Statistical Review of Studies Predicting Effort and Performance". *Psychological Bulletin* 6 pp. 139-147, 1979
- SCHWARZWELLER, H.K.: "Values and Occupational Choice." *Social Forces* 39 pp. 126-135, 1960-1961
- SEWELL, W.H., SHAH, V.P.: "Social Class, Parental Encouragement and Educational Aspirations." *American Journal of Sociology* 73 pp. 559-572, 1968
- SHAW, M.E., CONSTANZO, P.R.: *Theories of Social Psychology*. McGraw-Hill, International (2nd edition) 1982
- SHEARD, J.L.: "Intrasubject Prediction of Preferences for Organizational Types." *Journal of Applied Psychology* 54 pp. 248-252, 1970
- SHERIDAN, J.E., RICHARDS, M.P., SLOCUM, J.W.: "Comparative Analysis of Expectancy and Heuristic Models of Decision Behavior." *Journal of Applied Psychology* 60 pp. 367-368, 1975
- SHERLOCK, B., COHEN, A.: "The Strategy of Occupational Choice: Recruitment to Dentistry." *Social Forces* 39 pp. 303-313, 1966
- SIEGEL, S.: *Nonparametric Statistics for the Behavioral Sciences*. N.York: McGraw-Hill, 1956
- SIMPSON, R.L., SIMPSON, I.H.: "Values, Personal Influence, and Occupational Choice." *Social Forces* 39 pp. 116-125, 1960
- SMITH, M.B.: *Personal Values in the Study of Lives*, in White, R.W. (Ed.): *The Study of Lives*. N.Y.: Atherton, 1963

- SNODGRASS, J.T.: *The Numbers game: Statistics for Psychology*. Baltimore: Oxford University Press, 1977
- SOFER, C.M.: Introduction, in Williams, W.M. (Ed.): *Occupational Choice*. London: Allen and Unwin, 1974
- SPEAKMAN, M.: *Occupational Choice and Placement*. The Open University, Unit 5: People and Work, 1976
- SPRINTHALL, N.A.: "Work Values and Academic Achievement". *Vocational Guidance Quarterly* 15 pp. 52-56, 1966
- STARKE, F.A., BEHLING, D.: "A Test of Two Postulates Underlying Expectancy Theory." *Academy of Management Journal* 18 pp. 703-714, 1975
- STEFFLRE, B.: "Concurrent Validity of the Vocational Values Inventory." *Journal of Educational Research* 52 pp. 339-341, 1959
- STEINLAUF, S.D.: *Expectancy Theory: Resolution of Methodological Problems in an Occupational Preference Setting*. Unpublished PH.D Thesis, Wayne State University, 1978
- STEWART, A., PRANDY, K., BLACKBURN, R.M.: *Social Stratification and Occupations*. Cambridge Studies in Sociology. The Macmillan Press, 1980.
- STRONG, E.K.: *Vocational Interests 18 Years After college*. Minneapolis: Univ.of Minnesota Press, 1955
- SUPER, D.E.: "A Theory of Vocational Development." *American Psychologist* 8 pp. 185-190, 1953
- SUPER, D.E.: *The Psychology of Careers: An Introduction to Vocational Development*. N.York: Harper and Row, 1957
- SUPER, D.E.: "The Structure of Work Values in Relation to Status, Achievement, Interests, and Adjustment". *Journal of Applied Psychology* 46 pp. 231-239, 1962
- SUPER, D.E.: *The Work Values Inventory*. Boston: Houghton Mifflin, 1969
- SUPER, D.E.: *The Work Values Inventory*, in Zytowski, D.G. (Ed): *Contemporary Approaches to Interest Measurement*. Minneapolis: University of Minnesota Press, 1973
- SUPER, D.E.: "Vocational Guidance: Emergent Decision -Making in a Changing Society." *Bulletin of the International Association of Educational and Vocational Guidance* Vol.29 pp. 361-368 1976
- SUPER, D.E.: "The Babble That Is Babel." *Journal of Career Education* 5 pp. 156-171, 1978
- SUPER, D.E.: *Research Project Proposal: The Work Importance Study*. Cambridge: NICEC, 1979 (mimeo)
- SUPER, D.E.: *Approaches to Occupational Choice and Career*

- Development, in Watts, A.G., Super, D.E., Kidd, J.M. (Eds.): *Career Development in Britain*. Cambridge: CRAC (Hobsons Press) 1981
- SUPER, D.E., BACHRACH, P.: *Scientific Careers and Vocational Development Theory*. N.York: Teachers College Press, 1957.
- SUPER, D.E., BOHN, M.J.: *Occupational Psychology*. London: Tavistock Publications, 1971
- SUPER, D.E., CRITES, J.O., HUMMEL, R.C., MOSER, H., OVERSTREET, P.L., WARNATH, C.F.: *Vocational Development: A Framework for Research*. N.York: Bureau of Publications, Teachers College, Columbia University, 1957
- SUPER, D.E., OVERSTREET, P.L.: *The Vocational Maturity of Ninth Grade Boys*. N.York: Teachers College Press, 1960
- SUPER, D.E., STARISHEVSKY, R., MARTIN, N., JORDAAN, J.P.: *Self-Concept Theory*. N.York: College Entrance Examinations Board 1963
- SUTHERLAND, S.L., TANENBAUM, E.: "Rokeach's Value Survey in Use: An Evaluation with Criterion Attitude Scales and Party Identification." *The Canadian Review of Sociology and Anthropology* 12 pp. 551-564, 1975
- TAFJEL, H.: Experiments in a Vacuum, in J. Israel, H.Tajfel (Eds.): *The Context of Social Psychology. A Critical Assessment*. London: Academic Press, 1972
- TAYLOR, K. P.: *Orientations to Work*. Unpublished PH.D Thesis. University of Melbourne, 1975
- TAYLOR, R.N., THOMPSON, M.: "Work Values Systems of Young Workers." *Academy of Management Journal* 19 pp. 522-536, 1976
- TAYLOR, R.: "Career-Orientations and Intra-Occupational Choice: A Survey of Engineering Students." *Journal of Occupational Psychology* 52 pp. 41-52, 1979
- TEAS, K.P.: "A Within-Subject Analysis of Valence Models of Job Preference and Anticipated Satisfaction." *Journal of Occupational Psychology* 54 pp. 109-124, 1981
- THOMPSON, D.E.: "Occupational Values of High School Students." *Personnel and Guidance Journal* 44 pp. 850-853, 1966
- THOMPSON, K., TUNSTALL, J.: *Sociological Perspectives*. Harmondsworth: Penguin, 1971
- TIEDEMAN, D.V.: "Decision and Vocational Development: A Paradigm and its Implications." *Personnel and Guidance Journal* 40 pp. 15-20, 1961
- TIEDEMAN, D.V., O'HARA, R.P.: *Career Development: Choice and Adjustment*. N.York: College Entrance Examinations Board, 1963
- TIEDEMAN, D.V., TIEDEMAN-MILLER, Ann: *Choice and Decision Processes and Careers Revisited*, in Mitchell, A.M., Jones, G.B.,

Krumboltz, J.D. (Eds.): *Social Learning and Career Decision Making*. Cranston; Rhode Island: The Carroll Press, 1979.

TIMPERLEY, S. *Personnel Planning and Occupational Choice*. London: George Allen and Unwin, 1974.

TIMPERLEY, S., GREGORY, A.M.: "Some Factors Affecting Career Choice and Career Perceptions of 6th Form School Leavers." *Sociological Review* 19 pp.91-95, 1971.

TOLBERT, E.L.: *Counseling for Career Development*. Boston: Houghton Mifflin 1980

TROLL, L.E., NEUZARTEN, BL., KRAINES, R.J.: "Similarities in Values and Other Personality Characteristics in College Students and Their Parents." *Merrill-Palmer Quarterly* 15 pp. 323-336, 1969

TSOUKALAS, C.: *Dependance et Reproduction: Le Pole de l'Appareil Scolaire dans une Formation Trans-Territoriale*. PH.D Thesis, Sorbonne. Greek Edition: Athens: Themelio, 1979.

TURNER, R.: *The Social Context of Ambition*. S.Francisco: Chandler 1964

TYLER, L.: *Individuality*. Jossey-Bass Publishers, 1978.

VASSILIOU, G.: *Aspects of Parent-Adolescent Transactions in the Greek Family*, in Caplan, G., Lebovici, S. (Eds): *Adolescence: Psychological Perspectives*. N.York: Basic Books, 1969

VENESS, T.: *School Leavers: Their Aspirations and Expenctations* London: Methuen, 1962

VERNON, P.E.: *Personality Tests and Assessments*. N.York: Holt, 1953.

VERNON, P.E.: *Intelligence and Attainment Tests*. London: Univ. of London Press, 1960.

VERNON, P.E.: *The Structure of Human Abilities*. London: Methuen, 1961

VERNON, P.E.: *Intelligence and Cultural Environment*. London: Methuen, 1969.

VERNON, P.E. PARRY, J.B.: *Personnel Selection in the British Forces*. London: Univ. of London Press, 1949.

VROOM, V.H.: *Work and Motivation*. N.York: Wiley, 1964.

VROOM, V.: "Organizational Choice: A Study of Pre- and Post-Decision Processes". *Organizational Behavior and Human Performance* 1 pp. 212-225, 1966.

VROOM, V.H., DECI, E.L.: "The Stability of Post-Decision Dissonance: A Follow-Up Study of the Job Attitudes of Business School Graduates." *Organizational Behavior and Human Performance* 6 pp. 36-49, 1971.

- WAGMAN, M.: "Perceived Similarities in Occupational Value Structure." *Vocational Guidance Quarterly*, June, pp. 275-281, 1968
- WAHBA, M.A., HOUSE, R.J.: "Expectancy Theory in Work and Motivation: Some Logical and Methodological Issues." *Human Relations* 27 pp. 121-147, 1974.
- WANOUS, J.P.: "Occupational Preferences: Perceptions of Valence and Instrumentality and Objective Data." *Journal of Applied Psychology* 56 pp. 152-155, 1972
- WARR, P.: Theories of Motivation, in P. Warr (Ed.): *Personal Goals and Work Design*. London: John Wiley and Sons, 1976.
- WARR, P., WALL, T.: *Work and Well-Being*. Harmondsworth: Penguin 1975
- WATSON, T.J.: *Sociology, Work and Industry*. London: Routledge, Kegan and Paul, 1980.
- WATTS, A.G., SUPER, D.E., KIDD, J.M.: *Career Development in Britain*. Cambridge: CRAC (Hobsons Press), 1981.
- WEBER, MAX (1905) : *The Protestant Ethic and the Spirit of Capitalism*. Greek Edition, Athens: Gutenberg, 1978.
- WEINER, B.: *Human Motivation*. N.York: Holt, Rinehart, and Winston, 1980
- WEISS, D.J., DAWIS, R.V., ENGLAND, G.V., LOFQUIST, L.H.: *Construct Validation Studies of the Minnesota Importance Questionnaire*. Minnesota Studies in Voc. Rehabilitation. Vol. XVII. Minneapolis: Industrial Relations Center, University of Minnesota, 1964.
- WEST, C: *Job Choice as a Realisation of Values*. Unpublished Undergraduate Thesis for the Degree of MA. University of Edinburgh, 1983
- WHEELER, K.G.: *A Valence-Instrumentality-Expectancy Model in the Analysis of Occ. Preference and Occ.Choice*. Unpublished PH.D Thesis, Univ.of Minnesota, 1978.
- WHITE, R.W.: *The Study of Lives*. N.York: Atherton, 1963.
- WHITELEY, J.M., RESNIKOFF, A.: *Career Counseling*. Monterey, Calif.: Brooks/Cole, 1978.
- WIJTING, J.P., ARNOLD, C.R., CONRAD, K.A.: "Relationships between Work Values, Socio-Educational and Work Experiences, and Vocational Aspirations of 6th, 9th, 10th and 12th Graders." *Journal of Vocational Behavior* 11 pp. 51-65, 1977
- WIJTING, J.P., ARNOLD, C.R., CONRAD, K.A.: "Generational Differences in Work Values between Parents and Children and between Boys and Girls across Grade Levels 6, 9, 10, and 12." *Journal of Vocational Behavior* 12 pp. 245-260, 1978
- WILLIAMS, R.M. (Ed.): *Change and Stability in Values and Value*

- Systems, in Barber, B., Inkeles, A. (Eds.): *Stability and Social Change*. Boston: Little Brown and Co, 1971.
- WILLIAMS, W.M. (Ed.): *Occupational Choice. A Selection of Papers from the Sociological Review*. London: G. Allen and Unwin, 1974
- WILLIAMSON, E.G.: *Counseling Adolescents*. N.York: McGraw-Hill, 1950
- WILLIS, P.: *Learning to Labour*. Farnborough: Saxon House, 1977
- WILLIS, P. The Class Significance of School Counter-Culture, in Purvis, J., Hales, M. (Eds.): *Achievement and Inequality in Education*. London: Routledge, Kegan, and Paul, 1983.
- WITTON, R.A.: "How Should Social Scientists Study Values?" *Australian and New Zealand Journal of Sociology* 9 pp. 24-25, 1973
- WOLLACK, S., GOODALE, J.G., WIJTING, J.P., SMITH, P.C.: "Development of the Survey of Work Values." *Journal of Applied Psychology* 55 pp. 331-338, 1971
- WRENN, C.G.: *Human Values and Work in American Life*, in H. Borow (Ed.): *Man in a World at Work*. The National Vocational Guidance Association. Boston: Houghton Mifflin Co, 1964
- YOUNG, M.: *A Rank-Ordering Method of the Work Value Measurement*. Unpublished B.Sc. (Hons) Thesis, Dept. of Psychology University of Edinburgh, 1974
- ZEDECK, S., MIDDLESTADT, S., HAYES, E.: "Police Work Values: A Comparison of Police Science Students and Current Officers." *Journal of Occupational Psychology* 54 pp. 187-194, 1981
- ZILLER, R.C.: "Vocational Choice and Utility for Risk." *Journal of Counseling Psychology* 4 pp. 61-64, 1957
- ZYTOWSKI, D.G.: *Vocational Behavior: Readings in Theory and Research*. N.York: Holt, Rinehart and Winston, 1968.
- ZYTOWSKI, D.G.: "The Concept of Work Values." *Vocational Guidance Quarterly* 18 pp. 176-186, 1970(a)
- ZYTOWSKI, D.G.: *Psychological Influences on Vocational Development. Guidance Monograph Series, Series IV: Career Information and Development*. Boston: Houghton Mifflin, 1970(b)
- ZYTOWSKI, D.G.: *Considerations in the Selection and Use of Interest Inventories*, in D.G. Zytowski (Ed.): *Contemporary Approaches to Interest Measurement*. Minneapolis: Univ. of Minnesota Press, 1973.
- ZYTOWSKI, D.G. (Ed.): *Contemporary Approaches to Interest Measurement*. Minneapolis: Univ. of Minnesota Press, 1973.

APPENDIX

THE INSTRUMENTS

Frequency Distribution of Occupational Categories Mentioned
as First, Second, and Third Preferences in the Interviews.

| | 1st N=66 | | 2nd N=66 | | 3rd N=60 | |
|--|-------------|------|-------------|------|-------------|------|
| | fr | % | fr | % | fr | % |
| Engineering (Mechanical, Chemical, Civil, Aircraft etc) and Architecture. | 15 | 22.7 | 12 | 18.1 | 2 | 3.3 |
| Sciences (Physics, Chemistry, Maths, Agriculture, Electronics etc) | 10 | 15.1 | 17 | 25.7 | 11 | 18.3 |
| Economics, Accounting, Banking | 7 | 10.6 | 9 | 13.6 | 8 | 13.3 |
| Artists, Entertainers, Athletes | 6 | 9.0 | 2 | 3.0 | 1 | 1.6 |
| Medical and Veterinary | 6 | 9.0 | 2 | 3.0 | 1 | 1.6 |
| Diplomacy/Politics/Archaeology/Journalism | 5 | 7.5 | - | - | - | - |
| Business/Commerce/Construction/Manufact. | 4 | 6.0 | 4 | 6.0 | 7 | 11.6 |
| Pilots | 4 | 6.0 | - | - | - | - |
| Legal Professions | 3 | 4.5 | 8 | 12.1 | 3 | 5.0 |
| Merchant Marine | 3 | 4.5 | 1 | 1.5 | 3 | 5.0 |
| Teaching | 2 | 3.0 | 6 | 9.0 | 8 | 13.3 |
| Crafts (Jewelry, printing, electrical) | - | - | 2 | 3.0 | 7 | 11.6 |
| Clerks | - | - | 2 | 3.0 | 4 | 6.6 |

Note In the Engineering, Sciences, and Economics categories a few subjects have specified occupations of non-university level. All the occupations categorised under Business, Merchant Marine, Crafts and Clerks are of non-university level. Only subjects who mentioned teaching specifically have been categorised under teaching and not those who mentioned Science subjects that most of the times lead to teaching jobs, eg. Mathematics, Physics.

A. General

1. Why do people work?
2. What is the importance (or meaning) of work in people's lives?
3. Can a man's life be complete without work?
4. What else in life can be more important than - or equally important to - work?
5. What aspects of work do you think that you will find annoying when you will be a working person?
6. What aspects of work are you looking forward to?
7. What do you think can make a job satisfactory?
8. Would you work if you didn't have to? (If you had lots of money for example?)

B. Rewards of work

1. What would you like your job to offer you?
2. What would make you accept a job right away? What else?
3. What would make you reject a job right away? What else?
4. Suppose two different companies/organizations offered you
 - a) Two similar jobs
 - b) Two different jobsWhat would make you decide?
5. What would make you change your job?

C. Life values

1. What would you like to get in life?
2. What would you like to avoid in life?

D. Occupational choice

Some of the questions used for eliciting the occupations to be rank ordered and rated in terms of value attainment perception were the following:

What job would you want to do more than anything else?

Is it something you are trying to attain the way things are now?

Would you take it if you were offered it?

Are there any problems in pursuing it?

What do you think this job can offer you?

What kind of job do you think you are heading to the way things are? Can you give me two or three different jobs in order of preference?

In what order are you planning to put down the university departments in your application form?

(For each occupational alternative):

What can this job offer you?

What do you think your chances are?

Is there anything that makes it more accessible? Any contacts, anyone in the family?

Do you think you have the right abilities?

What problems do you think you will face?

What are the views of your parents?

What else do you think you might end up to?

What makes it easier?

What do you think this job can offer you?

What is it it is not offering?

What are the good and bad aspects?

E. Parents

What is you father's job?

Is he satisfied?

Would you do your father's job?

What are the good and bad aspects?

Do you think you will/are asked to continue this job?

What are your parents wishes for you?

Any pressures?

THE ROKEACH VALUE SURVEY

Terminal Values

A comfortable life
(a prosperous life)

An exciting life
(a stimulating, active life)

A sense of accomplishment
(lasting contribution)

A world at peace
(free of war and conflict)

A world of beauty
(beauty of nature and the arts)

Equality (brotherhood,
equal opportunity for all)

Family security
(taking care of loved ones)

Freedom
(independence, free choice)

Happiness
(contentedness)

Inner harmony
(freedom from inner conflict)

Mature love
(sexual and spiritual intimacy)

National security
(protection from attack)

Pleasure
(an enjoyable, leisurely life)

Salvation
(saved, eternal life)

Self-respect
(self-esteem)

Social recognition
(respect, admiration)

True friendship
(close companionship)

Wisdom (a mature
understanding of life)

Instrumental Values

Ambitious
(hard-working, aspiring)

Broadminded
(open-minded)

Capable
(competent, effective)

Cheerful
(lighthearted, joyful)

Clean
(neat, tidy)

Courageous
(standing up for your beliefs)

Forgiving
(willing to pardon others)

Helpful (working for
the welfare of others)

Honest
(sincere, truthful)

Imaginative
(driving, creative)

Independent
(self-reliant, self-sufficient)

Intellectual
(intelligent, reflective)

Logical
(consistent, rational)

Loving
(affectionate, tender)

Obedient
(dutiful, respectful)

Polite
(courteous, well-mannered)

Responsible
(dependable, reliable)

Self-controlled
(restrained, self-disciplined)

Work Quiz Items, their abbreviated forms, their a priori classifications, their classifications on the three scales, and their loadings.

| | a priori | scale | load. |
|--|----------|-------|-------|
| .It is important to be in a job where everybody gets promotion sooner or later (Everybody gets promotion) | C | TC | 439 |
| .I would like to work in the same line as others in the family (Same line as family) | T | -- | - |
| .It is important that I feel my job is of real value to me and to society (Job of real value) | A | RC | 394 |
| .I much prefer to work with a well-established and respected organization (Prefer respected organization) | C | TC | 432 |
| .It is very important that my pay allows for a high standard of living (Pay very important) | C | RC | -303 |
| .I expect my job to provide me with <u>the</u> major satisfaction in my life (Job the major satisfaction) | A | -- | -- |
| .I don't really mind what kind of work I do, as long as it keeps me going (As long as it keeps going) | T | PU | 342 |
| .I like a job where you never have to flog yourself (Never flog yourself) | T | PU | 373 |
| 1. Even when what I do is enough, I feel uneasy if I think I could have done better (Uneasy if I could do better) | A | RC | 286 |
| 0. I feel I haven't got much "say" in the choice of a job (Little "say" in choice) | T | -- | -- |
| 1. Pensions, social and medical benefits and good holidays are very much the sort of thing that makes a job attractive to me (Pensions, benefits) | C | TC | 537 |
| 2. I don't mind my job, it seems as good as any other (Don't mind job) | T | PU | 295 |
| 3. I don't mind giving up my own time to get a job finished (Give up own time) | A | RC | 435 |
| 4. In my opinion it is best to have a job where everyone can relax from time to time (Everyone relax) | C/T | -- | -- |
| 5. A lot of my friends get on with their work without thinking too much about it, and that seems the best way to me (Friends think little) | T | TC | 307 |
| 6. I wouldn't work if I didn't have to (I wouldn't work but have to) | T | RC | -454 |
| 7. I want a job that really gets the best out of me (Best out of me) | A | PU | -460 |

| | a prior. | scale | load. |
|--|----------|-------|-------|
| I like work where I can carry on doing the sort of things I enjoyed when I was a youngster (Continue as youngster) | T | TC | 353 |
| I want my job to be challenging (Want challenge) | A | PU | -473 |
| If a job is really interesting, I don't mind if it doesn't bring in a lot of money (Interest not money) | A | RC | 529 |
| I want to be very much personally involved in my work (Personally involved) | A | RC | 449 |
| I am not interested in any job I would have to think about when the day's work is done (Not think when done) | C | TC | 310 |
| I like to work for somebody who will encourage any amount of initiative (Encourage initiative) | A | -- | -- |
| The only important thing about a job is to work in pleasant surroundings with friendly people (Surroundings and people) | C | TC | 463 |
| I have known for a long time what work I was going to do (Known a long time) | T | -- | -- |
| I want a job that leaves me plenty of time for leisure (Time for leisure) | C | TC | 368 |
| I like to have a fair bit of say in my work, but I would hate to be in charge (Be in charge) | C | PU | 415 |
| However good it was, I wouldn't accept a job that took me away from home (Not leave home) | T | -- | -- |
| I want to work where I can have a lot of responsibilities (Want responsibilities) | A | PU | -529 |
| I chose my job mainly on my parents' advice (Parents' advice) | T | TC | 317 |
| I am really a perfectionist about my job (Perfectionist) | A | PU | -283 |
| It is important to be in a job which other people respect (Others' respect) | C | TC | 445 |
| I much prefer to be my own boss (Be own boss) | C | -- | -- |

A=Actualizing, T=Traditional, C=Calculating
R=Responsibly Committed, TC=Traditionally Comfortable, PU=Passively Unconcerned

Τό ἐρωτηματολόγιο αὐτό ἀποτελεῖ μέρος ἀπό μιᾶ ἐρευνητική ἐργασία πού ἀποσκοπεῖ νά ἐξετάσει πῶς ἀντιμετωπίζουν οἱ νέοι τήν ἐργασία καί τί περιμένουν ἀπό αὐτή.

Ὅλες οἱ ἐρωτήσεις ἔχουν καθαρά ἐρευνητικό χαρακτήρα καί οἱ ἀπαντήσεις θά χρησιμοποιηθοῦν μόνο γιά νά γίνει γενική ἀξιολόγηση τῆς στάσης τῶν Ἑλλήνων νέων ἀέναντι στήν ἐργασία.

Παρακαλῶ ἔωστε τά παρακάτω στοιχεῖα, πού ζητοῦνται γιά τοὺς ἑξῆς καί μόνο σκοπούς : α) Νά μπορεῖ σέ κάθε στιγμή νά ἀποδείξει ὁ ἐρευνητής ὅτι τά στοιχεῖα πού συνέλεξε δέν εἶναι προϊόντα τῆς φαντασίας του, β) Νά μπορέσει ὁ ἐρευνητής νά ἐπικοινωνήσῃ πάλι μαζί σας σέ περίπτωση πού χρειαστοῦν συμπληρωματικά στοιχεῖα :

Ὄνομα Μυκωνιάτης Ἀντώνης

Σχολεῖο Λεόντειο Λύκειο

Διεύθυνση σπιτιοῦ Μεσογείων 41 ΒΥΡΩΝ

Τάξη 3^η Λυκείου

Τηλεφ. 7662546

Σας εὐχαριστῶ πολύ γιά τή συνεργασία.

Ἀριστοτέλης Κάντας

Μεταπτυχιακός ἐρευνητής
στό Τμήμα Ψυχολογίας τοῦ
Πανεπ. τοῦ Ἑδιμβούργου

Ρήγα Ἐεραίου 15-Π. ἑάληρο
τηλ. 9811937

THE QUESTIONNAIRE: INTRODUCTION

Στό τμήμα πού ακολουθεῖ θά βρεῖτε μερικές σκέψεις ἀναφορικά μέ τήν ἐργασία. Αὐτό πού ζητεῖται ἀπό σᾶς νά κάνετε εἶναι νά πεῖτε ἂν συμφωνεῖτε ἢ διαφωνεῖτε μέ κάθε μιὰ ἀπό τίς προτάσεις πού ἀκολουθοῦν. Πρέπει νά ἔχετε ὑπόψη σας ὅτι δέν ὑπάρχουν σωστές ἢ λανθασμένες, καλές ἢ κακές ἀπαντήσεις. Αὐτό πού μετρά εἶναι ἡ δική σας γνώμη.

Δίπλα σέ κάθε πρόταση θά βάζετε τόν ἀριθμό 1 ἢ 2 ἢ 3 κλπ. σύμφωνα μέ τήν παρακάτω κλίμακα :

1 = Συμφωνῶ ἀπόλυτα

4 = Διαφωνῶ

2 = Συμφωνῶ

5 = Διαφωνῶ ἀπόλυτα

3 = Δέν μπορῶ νά ἀποφασίσω

ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ

1. Εἶναι ὅπωςδήποτε σημαντικό νά ἐργάζεσαι κάπου ὅπου ὅλοι παίρνουν προαγωγές ἀργά ἢ γρήγορα.
2. Θά ἤθελα νά δουλέψω σέ κάτι σχετικό μέ αὐτό πού κάνουν ἄλλα πρόσωπα στήν οἰκογένειά μου.
3. Εἶναι σημαντικό νά νιώθω ὅτι ἡ δουλειά μου ἔχει ἀξία, τόσο γιὰ μένα τόν ἴδιο, ὅσο καί γιὰ τήν κοινωνία.
4. Εἶμαι προτιμοῦσα νά δουλέψω σέ μιὰ ἐταιρεία ἢ ὀργανισμό μέ καλή φήμη καί μακρόχρονη παράδοση.
5. Εἶναι πολύ σημαντικό νά μπορῶ νά ἐξασφαλίσω μέ τό μισθό μου ἕνα ὑψηλό βιοτικό επίπεδο.
6. Ἐλπίζω ὅτι ἡ δουλειά μου θά μοῦ δώσει τή μεγαλύτερη ικανοποίηση στή ζωή μου.
7. Δέ μέ νοιάζει οὐσιαστικά τί εἶδους δουλειά θά κάνω, φτάνει νά τά βγάλω πέρα.
8. Θά ἤθελα μιὰ δουλειά ὅπου νά μή "σκοτώνεσαι".
9. Ἀκόμα κι ὅταν κάνω μιὰ δουλειά καλά, νιώθω ἀνησυχία ὅταν σκέφτομαι ὅτι θά μπορούσα νά τήν κάνω καλύτερα.
10. Νομίζω ὅτι ἡ ἐκλογή τοῦ ἐπαγγέλματος δέν εἶναι ἀπόλυτα στά χέρια μου.
11. Ἡ σύνταξη, ἡ ἱατροφαρμακευτική περίθαλψη, ἡ ἀσφάλιση, οἱ διακοπές εἶναι αὐτά πού μέ τραβοῦν σέ μιὰ δουλειά.
12. Δέ μέ νοιάζει καί τόσο πολύ τό εἶδος τῆς δουλειᾶς. Λίγο πολύ ὅλες οἱ δουλειές εἶναι ἴδιες.
13. Δέν μέ πειράζει νά θυσιάζω ἀπό τόν ἐλεύθερο χρόνο μου προκειμένου νά τελειώσω μιὰ δουλειά.

| |
|---|
| 2 |
| 2 |
| 1 |
| 4 |
| 1 |
| 4 |
| 5 |
| 2 |
| 4 |
| 5 |
| 4 |
| 5 |
| 4 |

1 = Συμφωνῶ απόλυτα

4 = Διαφωνῶ

2 = Συμφωνῶ

5 = Διαφωνῶ απόλυτα

3 = Δέν μπορῶ νά ἀποφασίσω

4. Πιστεύω ὅτι τό καλύτερο εἶναι νά ἔχεις μιὰ δουλειά πού νά μπορεῖς νά ξεκουράζεσαι, νά χαλαρώνης πότε πότε. 1
5. Πολλοί ἄνθρωποι τά πᾶνε καλά στή δουλειά τους χωρίς νά πολυνιάζονται γι' αὐτή. Μοῦ φαίνεται ὅτι αὕτη εἶναι ἡ καλύτερη τακτική. 4
6. Ἄν ἐέν ἦμουν ἀναγκασμένος, θέ θά ἐργαζόμουν. 2
7. Θέλω μιὰ δουλειά πού νά μοῦ δίνει τήν εὐκαιρία νά ἀξιοποιῶ τίς δυνατότητές μου. 2
8. Θέλω στή δουλειά μου νά μπορῶ νά συνεχίσω νά κάνω αὐτά πού μοῦ εὐίνουν εὐχαρίστηση τώρα πού εἶμαι νέος. 1
9. Θέλω ἡ δουλειά μου νά μέ "προκαλεῖ" (νά μοῦ δημιουργεῖ ἐρεῦίσματα). 2
10. Ἄν ἡ δουλειά εἶναι πραγματικά ἐνδιαφέρουσα, θέ μ' ἐνδιαφέρει ἂν θέν βγάῶ πολλά χρήματα. 4
1. Θέλω νά ἔχω μεγάλη προσωπική συμμετοχή στή δουλειά μου. 2
2. Δέ θά μ' ἐνδιέφερε μιὰ δουλειά πού θά μέ ἀπασχολοῦσε καί μετά τίς ἐργάσιμες ὥρες. 4
3. Θά ἤθελα μιὰ δουλειά πού νά ἐνθαρρύνει κάθε εἶδους πρωτοβουλία. 4
4. Τό μόνο πού μετρᾷ σέ μιὰ δουλειά εἶναι νά ἐργάζεσαι σέ εὐχάριστο περιβάλλον μέ φιλικούς ἀνθρώπους. 1
5. Ἀπό παλιά ξέρω σέ τί δουλειά θά καταλήξω τελικά. 2
6. Θέλω μιὰ δουλειά πού νά μοῦ ἀφήνει πολύ ἐλεύθερο χρόνο. 2
7. Θά ἤθελα νά ἔχω πότε πότε τό λόγο στή δουλειά μου, ἀλλά δέ θά μ' ἔρεσε νά ἔχω τήν ἀποκλειστική εὐθύνη. 3
8. Ὅσο καλή καί νά εἶναι, δέ θέλω μιὰ δουλειά πού νά μέ πάρει μακριά ἀπό τό σπίτι μου καί τόν τόπο μου. 4
9. Θέλω νά δουλέψω κάπου ὅπου νά ἔχω πολλές εὐθύνες. 4
10. Διαλέγω/διάλεξα τό ἐπάγγελμά μου κυρίως μετά ἀπό συμβουλή τῶν γονιῶν μου. 5
1. Θέλω νά τά κάνω ὅλα τέλεια στή δουλειά μου. 4
2. Εἶναι σημαντικό νά ἔχεις ἕνα ἐπάγγελμα πού νά σέ βρουνται οἱ ἄλλοι. 2
3. Θά προτιμοῦσα νά εἶμαι ἀφεντικό τοῦ ἐαυτοῦ μου. 3

Στό τμήμα πού ἀκολουθεῖ ἐκτελεῖται νά γίνει μιὰ ἀξιολόγηση τῶν "ἀξιών" τῆς ζωῆς καί τῆς ἐργασίας, ὥστε νά γίνει μιὰ ἐκτίμηση τῶν γενικῶν κατευθύνσεων τῶν Ἑλλήνων νέων καί σέ ποιά ἐκταση ἔχουν τοὺς ἴδιους σκοποὺς ἢ ὄχι μέ τίς παλαιότερες γενιές ἢ τοὺς γονεῖς τοὺς.

Σῶς ἔχουν δοθεῖ δύο δεσμίδες μέ κάρτες. Ἡ μία δεσμίδα περιέχει μερικὰ ἀπὸ αὐτὰ πού ὀνομάστηκαν "ἀξίες ζωῆς" καί ἡ ἄλλη μερικὰ ἀπὸ αὐτὰ πού ὀνομάστηκαν "ἀξίες ἐργασίας". Γενικά ἀποτελοῦν πράγματα πού οἱ ἄνθρωποι ἐκτιμοῦν καί ἐπιδιώκουν στή ζωὴ τους ἢ στήν ἐργασία τους.

Οἱ κάρτες ἔχουν ἀριθμηθεῖ κατὰ ἀλφαβητική σειρά, γιατί τό κάθε στοιχεῖο ἔχει τήν ἴδια ἀξία. Αὐτό πού ζητεῖται ἀπὸ σᾶς εἶναι νά βάλετε τίς κάρτες κάθε δεσμίδας ξεχωριστά, μέ τή σειρά σπουδαιότητας πού ἔχουν γιά σᾶς τόν ἴδιο.

Γιά τίς "ἀξίες ζωῆς" θά σκεφεῖτε κατὰ ποιά σειρά σπουδαιότητας ἢ κάθε ἀξία ἀποτελεῖ κατευθυντήριο σκοπὸ στή ζωὴ σας. Γιά τίς "ἀξίες ἐργασίας" θά σκεφεῖτε πόσο σημαντική γιά σᾶς εἶναι ἡ κάθε μία ἀπὸ αὐτές σέ σχέση μέ τήν ἐργασία γενικά.

Αὐτό πού μετᾷ εἶναι τί ἐσεῖς ὁ ἴδιος ἐκτιμᾶτε καί ἐπιθυμεῖτε καί ὄχι τί γενικά θεωρεῖται σωστό ἢ ἐπιθυμητό.

Ἀφοῦ βάλετε τήν κάθε δεσμίδα κατὰ σειρά σπουδαιότητας θά γράψετε στὸν παρακάτω χῶρο τοὺς ἀριθμοὺς τῶν καρτῶν, ὅπως τίς ἔχετε ἐσεῖς ταξινομήσει.

Ἀξίες Ζωῆς

| <u>Σειρά</u> | <u>Ἀριθμ. Κάρτας</u> |
|----------------------|----------------------|
| 1η (ἡ πιό σημαντική) | ...5...95 |
| 2η | ...2...90 |
| 3η | ...6...89 |
| 4η | ...9...90 |
| 5η | ...11...85 |
| 6η | ...4...85 |
| 7η | ...1...70 |
| 8η | ...7...65 |
| 9η | ...3...65 |
| 10η | ...12...55 |
| 11η | ...8...55 |

Ἀξίες Ἐργασίας

| <u>Σειρά</u> | <u>Ἀριθμ. Κάρτας</u> |
|----------------------|----------------------|
| 1η (ἡ πιό σημαντική) | ...17...95 |
| 2η | ...15...90 |
| 3η | ...13...88 |
| 4η | ...5...80 |
| 5η | ...2...75 |
| 6η | ...18...70 |
| 7η | ...10...70 |
| 8η | ...14...70 |
| 9η | ...3...65 |
| 10η | ...9...65 |
| 11η | ...11...60 |

INSTRUCTIONS FOR THE RANKING OF
VALUES

Αξίες Ζωής

| <u>Σειρά</u> | <u>Αριθμ. Κάρτας</u> |
|--------------|----------------------|
| 12η | ...10...45 |
| 13η | ...13...20 |

Αξίες Εργασίας

| <u>Σειρά</u> | <u>Αριθμ. Κάρτας</u> |
|--------------|----------------------|
| 12η | ...12...60 |
| 13η | ...7...50 |
| 14η | ...8...50 |
| 15η | ...4...45 |
| 16η | ...16...40 |
| 17η | ...1...30 |
| 18η | ...6...30 |

ποιά έκταση πιστεύεις ότι κάθε ένα από τα παρακάτω επαγγέλματα θα
 σου παρέχει ή θα σου στερεί τις παρακάτω αξίες ;

ΚΛΙΜΑΚΑ

- Μοῦ παρέχει τήν εύκαιρία νά
 πραγματοποιήσω

Μοῦ στερεῖ τήν εύκαιρία νά
 πραγματοποιήσω
1. Μοῦ τήν παρέχει απόλυτα
 2. Μοῦ τήν παρέχει πάρα πολύ
 3. Μοῦ τήν παρέχει πολύ
 4. Μοῦ τήν παρέχει λίγο

5. Μοῦ τίς στερεῖ λίγο
 6. Μοῦ τίς στερεῖ πολύ
 7. Μοῦ τή στερεῖ πάρα πολύ
 8. Μοῦ τή στερεῖ απόλυτα

| | | | | |
|--|--|--|--|--|
| ΑΙΣΘΗΜΑ ΕΠΙΤΥΧΙΑΣ (Ευνισφορά στό σύνολο | | | | |
| ΑΝΕΣΕΙΣ ΣΤΗ ΖΩΗ (Οίκον. άνεση-εύημερία) | | | | |
| ΑΥΤΟΣΕΒΑΣΜΟΣ (Αύτοεκτίμηση) | | | | |
| ΕΛΕΥΘΕΡΙΑ (*Ανεξαρτησία, έλευθερία στις έπιλογές) | | | | |
| ΕΥΤΥΧΙΑ (Αίσθημα ικανοποίησης) | | | | |
| ΕΥΧΑΡΙΣΤΗΣΗ ΔΙΑΣΕΛΕΔΑΣΗ(εύχάριστη ζωή, εύλεύτερος χρόνος) | | | | |
| ΙΣΟΤΗΤΑ (*Αδελφοσύνη, ισότητα εύκαιρ.) | | | | |
| ΚΟΙΝΩΝΙΚΗ ΑΝΑΓΝΩΡΙΣΗ (Σεβασμός - θαυ- μασμός) | | | | |
| ΟΙΚΟΓΕΝΕΙΑΚΗ ΑΣΦΑΛΕΙΑ (Φροντίδα για τ'άγαπημένα πρόσωπα) | | | | |
| ΟΜΟΡΘΙΑ (Καλλιτεχνική καί στή ούση) | | | | |
| ΠΡΑΓΜΑΤΙΚΗ ΘΙΛΙΑ (Συντροφικότητα) | | | | |
| ΣΩΦΙΑ (*Ωριμη κατανόηση τής ζωής | | | | |
| ΣΥΝΑΡΙΩΣΤΙΚΗ ΖΩΗ (Δραστηριότητα, ένεργητικότητα) | | | | |

LIFE VALUES: THE MEASUREMENT OF

INSTRUMENTALITIES

Όνομα : _____ Σχολείο : _____

ποιά έκταση πιστεύεις ότι κάθε ένα από τα παρακάτω επαγγέλματα σου παρέχει ή θά σου στερεϊ τις παρακάτω αξίες ;

ΚΑΙΜΑΚΑ

- Μοῦ παρέχει τήν εύκαιρία νά πραγματοποιήσω

1. Μοῦ τήν παρέχει απόλυτα

2. Μοῦ τήν παρέχει πάρα πολύ

3. Μοῦ τήν παρέχει πολύ

4. Μοῦ τήν παρέχει λίγο
- Μοῦ στερεϊ τήν εύκαιρία νά πραγματοποιήσω

5. Μοῦ τήν στερεϊ λίγο

6. Μοῦ τήν στερεϊ πολύ

7. Μοῦ τήν στερεϊ πάρα πολύ

8. Μοῦ τήν στερεϊ απόλυτα

| | | | | | |
|--|--|--|--|--|--|
| ΛΙΓΛΗ | | | | | |
| ΛΗΞΕΑΡΤΗΣΙΑ | | | | | |
| ΔΙΑΝΟΗΤΙΚΑ ΕΡΕΘΙΣΜΑΤΑ | | | | | |
| ΔΥΝΑΤΟΤΗΤΑ ΓΙΑ ΠΡΩΤΟΤΥΠΙΑ ΚΑΙ ΕΦΕΥΡΕΤΙΚΟΤΗΤΑ | | | | | |
| ΔΥΝΑΤΟΤΗΤΕΣ ΠΡΟΛΩΓΗΣ | | | | | |
| ΕΛΕΥΘΕΡΙΑ ΚΑΛΛΙΤΕΧΝΙΚΗΣ ΕΚΦΡΑΣΗΣ | | | | | |
| ΕΞΟΥΣΙΑ | | | | | |
| ΕΠΙΤΥΧΙΑ, ΔΗΜΙΟΥΡΓΙΚΟΤΗΤΑ | | | | | |
| ΕΥΚΑΙΡΙΑ ΓΙΑ ΤΑΞΙΔΙΑ ΚΑΙ ΜΕΤΑΚΙΝΗΣΕΙΣ | | | | | |
| ΕΥΚΑΙΡΙΑ ΝΑ ΕΟΙΚΘΩ ΑΛΛΟΥΣ | | | | | |
| ΕΥΚΑΙΡΙΑ ΝΑ ΚΑΝΩ ΓΝΩΡΙΜΙΕΣ | | | | | |
| ΕΥΧΑΡΙΣΤΗ ΖΩΗ ΕΞΩ ΑΠΟ ΤΗ ΔΟΥΛΕΙΑ | | | | | |
| ΚΑΛΗ ΑΓΙΟΙΒΗ | | | | | |
| ΚΑΛΟΙ ΠΡΟΙΣΤΑΜΕΝΟΙ (καλή διοίκηση) | | | | | |
| ΣΥΝΘΗΚΕΣ ΕΡΓΑΣΙΑΣ (περιβάλλον ανέσεις, ώρario) | | | | | |
| ΠΟΙΚΙΛΙΑ | | | | | |
| ΣΤΑΘΕΡΗ, ΣΙΓΟΥΡΗ ΔΟΥΛΕΙΑ | | | | | |
| ΕΧΣΕΛΙΣ ΜΕ ΣΥΝΑΔΕΛΦΟΥΣ | | | | | |

FORCED CHOICE SCALE FOR THE MEASUREMENT OF
 "PAY", "INTEREST", AND "SURROUNDINGS".

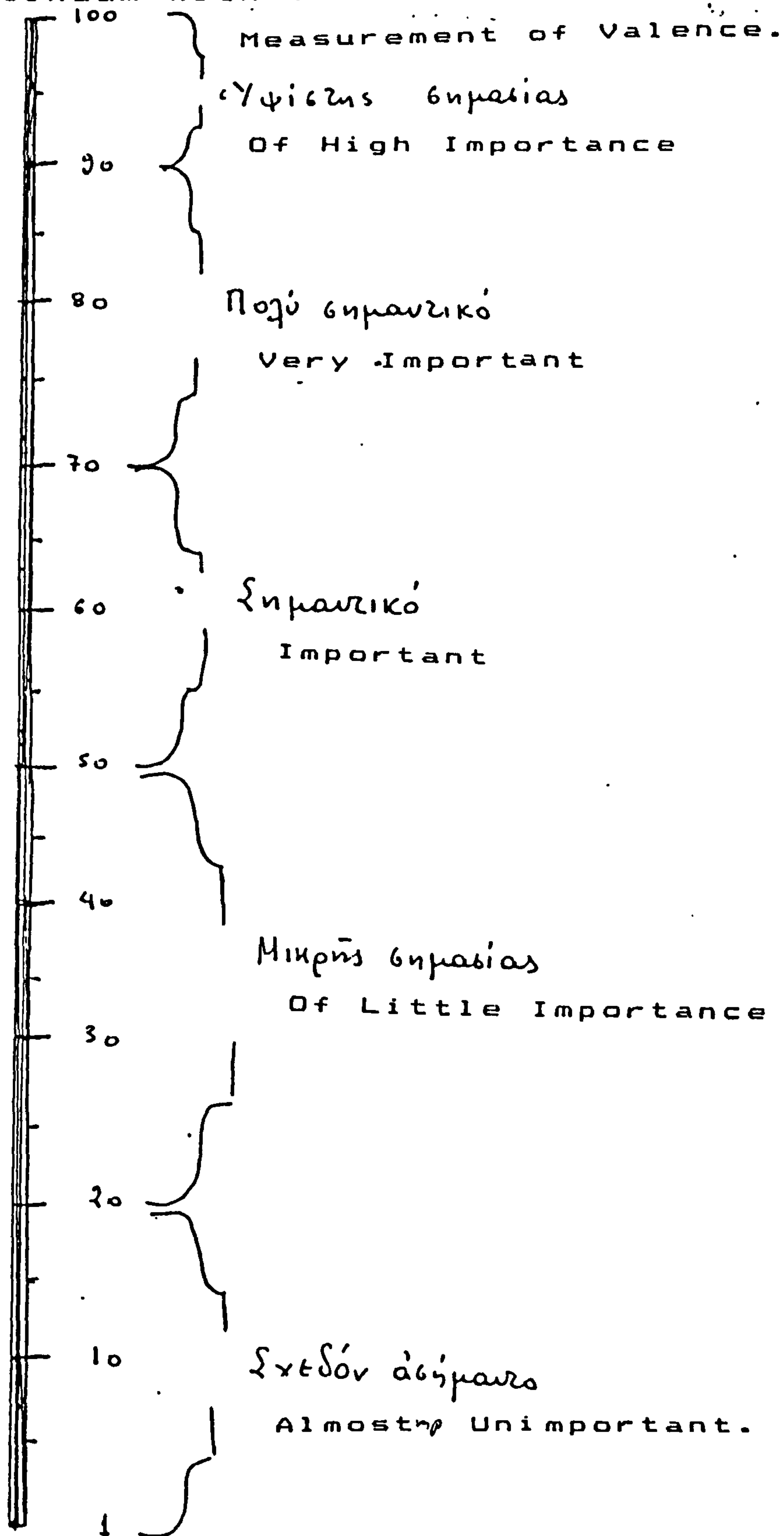
Θά διάλεγα μιά δουλειά :

| | Σίγουρα | Πιθανό | Δέν ξέρω | Πιθανό | Σίγουρα | |
|--|---------|--------|----------|--------|---------|-------------------------------------|
| *Ενδιαφέρουσα *Οχι καλοπληρω- μένη | | | | | | Μή ενδιαφέρουσας Καλοπληρωμένη |
| *Ωραίο περιβάλ- λον, έγκαταστά- σεις κ.λ.π. *Οχι καλοπλη- ρωμένη | | | | | | Φτωχό περιβάλλο Καλοπληρωμένη |
| *Ενδιαφέρουσα Φτωχό περιβάλ- λον | | | | | | Μή ενδιαφέρουσα *Ωραίο περιβάλλο |

Θά διάλεγα μιά δουλειά :
 I would choose a job :

| | Σίγουρα Definitely | Πιθανό Possibly | Δέν ξέρω I don't know | Πιθανό Possibly | Σίγουρα Definitely | |
|--|-----------------------|--------------------|--------------------------|--------------------|-----------------------|---|
| *Ενδιαφέρουσα Interesting *Οχι καλοπληρωμέ- νη Not well-paid | | | | | | Μή ενδιαφέρουσα Uninteresting - Καλοπληρωμένη Well-paid |
| *Ωραίο περιβάλ- λον, έγκαταστά- σεις κ.λ.π. Nice environment etc. *Οχι καλοπληρω- μένη Not well-paid | | | | | | Φτωχό περιβάλλον Poor environment - Καλοπληρωμένη Well-paid |
| *Ενδιαφέρουσα Interesting Φτωχό περιβάλ- λον Poor environment | | | | | | Μή ενδιαφέρουσα Uninteresting *Ωραίο περιβάλλον Nice environment |

Continuum with Verbal Anchorings for the



THE LIFE VALUES CARDS

1. ΑΙΣΘΗΜΑ ΕΠΙΤΥΧΙΑΣ
(Συνεισφορά στο Σύνολο)

2. ΑΝΕΣΕΙΣ ΣΤΗ ΖΩΗ
(οικονομική άνεση - εύημερία)

3. ΑΥΤΟΙΣΕΒΑΣΜΟΣ
(Αυτοεκτίμηση)

4. ΕΛΕΥΘΕΡΙΑ
(Ανεξαρτησία, ελευθερία, στις
επιλογές)

5. ΕΠΙΤΥΧΙΑ
(Αίσθημα - Ικανοποίησης)

6. ΕΥΧΑΡΙΣΤΗΣΗ, ΔΙΑΣΚΕΔΑΣΗ
(Ευχάριστη ζωή, ελεύθερος
χρόνος)

7. ΙΣΟΤΗΤΑ (Άδελφασύνη,
Ισότητα ευκαιριών)

8. ΚΟΙΝΩΝΙΚΗ ΑΝΑΓΝΩΡΙΣΗ
(Σεβασμός - Θαυμασμός)

9. ΟΙΚΟΓΕΝΕΙΑΚΗ ΑΣΦΑΛΕΙΑ
(Φροντίδα για τ' αγαπημένα
πρόσωπα)

10. ΟΜΟΡΦΙΑ
(Καλλιτεχνική και στη φύση)

11. ΠΡΑΓΜΑΤΙΚΗ ΦΙΛΙΑ
(Συντροφικότητα)

12. ΣΟΦΙΑ
(Όριμη κατανόηση της ζωής)

13. ΣΥΝΑΡΠΑΣΤΙΚΗ ΖΩΗ
(Δραστηριότητα - Ινεργητικότητα)

THE WORK VALUES CARDS

1. ΑΙΓΛΗ

2. ΑΝΕΞΑΡΤΗΣΙΑ

3. ΔΙΑΝΟΗΤΙΚΑ ΕΡΕΘΙΣΜΑΤΑ

4. ΔΥΝΑΤΟΤΗΤΑ ΓΙΑ ΠΡΩΤΟΤΥΠΙΑ
ΚΑΙ ΕΦΕΥΡΕΤΙΚΟΤΗΤΑ

5. ΔΥΝΑΤΟΤΗΤΕΣ ΠΡΟΑΓΩΓΗΣ

6. ΕΛΕΥΘΕΡΙΑ ΚΑΛΛΙΤΕΧΝΙΚΗΣ
ΕΚΦΡΑΣΗΣ

7. ΕΞΟΥΣΙΑ

8. ΕΠΙΤΥΧΙΑ - ΔΗΜΙΟΥΡΓΙΚΟΤΗΤΑ

9. ΕΥΚΑΙΡΙΑ ΓΙΑ ΤΑΞΙΔΙΑ ΚΑΙ
ΜΕΤΑΚΙΝΗΣΕΙΣ

10. ΕΥΚΑΙΡΙΑ ΝΑ ΒΟΗΘΩ ΑΛΛΟΥΣ

11. ΕΥΚΑΙΡΙΑ ΝΑ ΚΑΝΩ ΓΝΩΡΙΜΙΕΣ

12. ΕΥΧΑΡΙΣΤΗ ΖΩΗ ΕΞΩ ΑΠΟ
ΤΗ ΔΟΥΛΕΙΑ

13. ΚΑΛΗ ΑΜΟΙΒΗ

14. ΚΑΛΟΙ ΠΡΟ-ΪΣΤΑΜΕΝΟΙ
(καλή Διοίκηση)

15. ΣΥΝΘΗΚΕΣ ΕΡΓΑΣΙΑΣ
(περιβάλλον - άνεσεις - ώρario)

16. ΠΟΙΚΙΛΙΑ

17. ΣΤΑΘΕΡΗ, ΣΙΓΟΥΡΗ ΔΟΥΛΕΙΑ

18. ΣΧΕΣΕΙΣ ΜΕ ΣΥΝΑΔΕΛΦΟΥΣ